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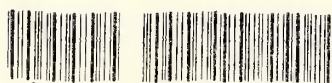
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MILLERS, MANUFACTURERS
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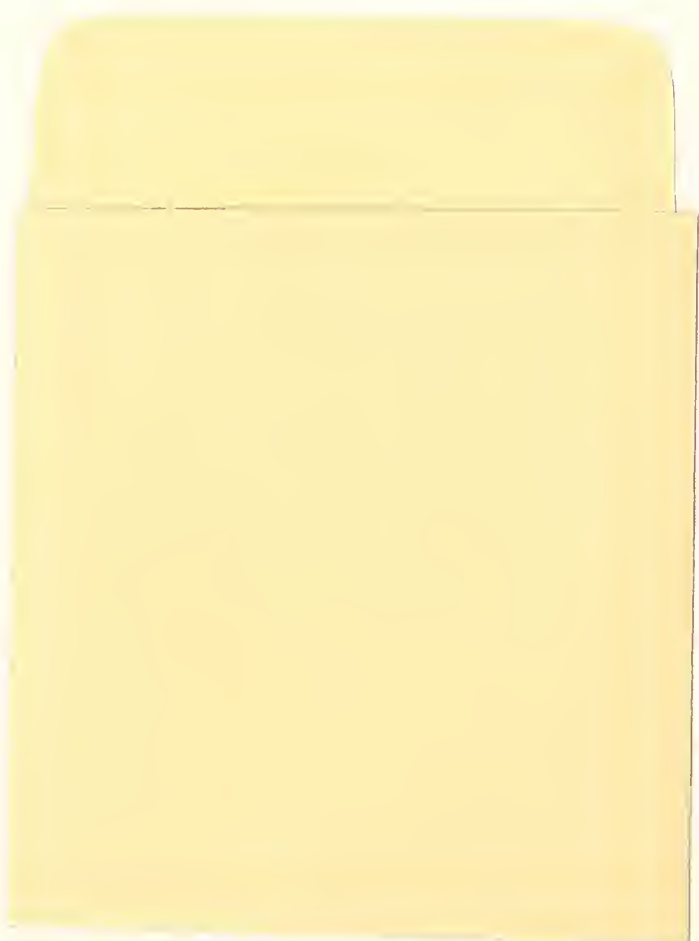
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CANADIAN INDUSTRY IN 1871

Research Report 9

**THE HUM OF INDUSTRY:
MILLERS, MANUFACTURERS AND ARTISANS
OF WELLINGTON COUNTY**

Elizabeth Bloomfield and G.T. Bloomfield

Elizabeth Bloomfield, series editor

December 1989



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Cover Illustration (selected and described by G.T. Bloomfield)

The view of Whitevale, Township of Pickering, was chosen to illustrate Canadian industry in 1871. At this time, a high proportion of manufacturing activity was still located in small settlements, some of which were growing rapidly into towns. **Lovell's Directory** (1871) described Whitevale as:

A thriving village...[with] extensive flouring and woollen mills... Montreal Telegraph Co has an office here. Distant from Whitby, the county town, and a station of the Grand Trunk Railway, 13 miles. Mail daily. Population about 250.

Truman P. White has acquired the water rights at Majorville on Duffin's Creek in 1845 and developed a grist mill, a saw mill and, later, a woollen mill. By 1871 the census enumerated six significant industrial establishments employing 66 workers and with a total value of production amounting to \$125,000. The transition from waterwheels (70 horsepower) to steam engines (66 horsepower) was already apparent in the village by this date. In common with its counterparts across the country, Whitevale's basic industrial activities were closely associated with the local agricultural area. There was also considerable economic integration apparent in the ownership of several establishments by Truman P. White and in the making of staves in the sawmill for the cooper shop which in turn supplied the flour mill with basic containers for transporting the flour to market.

Unlike many of its contemporaries, Whitevale has remained about the same size ever since 1871. The 1971 census recorded a population of only 273 in the unincorporated settlement. Whitevale never achieved connection by railway, county road or provincial highway. Much of the surrounding land was acquired for the planned Pickering airport and new town in 1972/3 and today the settlement is threatened by the creation of a municipal solid waste dump for Metropolitan Toronto and the Durham Region.

The illustration was first published in the **Illustrated Historical Atlas of the County of Ontario** (Toronto: J.H. Bees and Co., 1877), reprinted Ross Cumming, 1972).

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CANADIAN INDUSTRY IN 1871 (CANIND71) PROJECT

Between 1982 and 1989, a project based in the Department of Geography, University of Guelph, has made machine-readable the full data for some 45,000 industrial firms that were enumerated in Canada's first national census in 1871. A uniquely valuable source is thus becoming accessible to scholars and researchers in several disciplines. The 1871 schedules contain a wealth of information which was not published at the time or later. Although similar details were collected in the censuses of 1881, 1891, 1901 and 1911, none of the manuscript schedules for those years have survived. The CANIND71 database has great significance in being a detailed "snapshot" of industrial activity just after Confederation, at a time of transition in industrial technology, business organization and work discipline. The records include examples of all kinds of industrial work environments from mills and artisanal craftshops in mainly rural settings to factories, manufactories and sweatshops in the growing towns and cities.

The CANIND71 project is important for its methodological experience in handling large quantities of historical data and making them accessible to users. Relevant aspects include the total coverage of all establishments and all variables recorded in the original source and our dedication to making the material available to others in a variety of software environments and with full explanation of the source and methodology. As well as the data for each establishment, we have added precise geographical references and Standard Industrial Classification codes (SIC) for all establishments, which permit both the retrieval of details for individual businesses and their systematic aggregation by industry type or geographical area.

Creation of the CANIND71 database has been assisted by several grants from the Social Sciences and Humanities Research Council of Canada between 1985 and 1989. The most substantial of these were Grants 482-87-0010 and 482-88-0010 to Elizabeth Bloomfield as principal investigator, in the Strategic Grants Program: Women and Work Theme. These grants, totalling \$114,000, supported the most intensive phase of database creation in 1988 and 1989. Other SSHRC grants to Elizabeth Bloomfield (principal) in 1985 and to Kris Inwood (principal) in 1988 have also helped. In addition, smaller grants from the University of Guelph to Gerald Bloomfield and Kris Inwood have supported the project for short periods. Personal funds have also been necessary. Some preliminary activity on the Maritime data during 1986 was assisted by a grant from St Mary's University, Halifax, to Professor Inwood and Professor John Chamard.

The officials responsible for the original 1871 Census of Canada believed that the information they collected and collated was "as accurate as is humanly possible." In our turn, we are devoting several months in 1989-1990 to rigorously checking and editing the SAS datasets for Ontario, the Maritimes and Quebec on the mainframe computer. We expect that the final version of the whole database will be available for others to use from January 1991. Those interested in obtaining the whole database or partial datasets should contact Dr Elizabeth Bloomfield, C/- Department of Geography, University of Guelph, Guelph, Ontario, N1G 2W1, after September 1990.

CANADIAN INDUSTRY IN 1871 PROJECT: RESEARCH REPORTS

1. **Industry in Ontario Urban Centres, 1870: Accessing the Manuscript Census**, Elizabeth Bloomfield, G.T. Bloomfield, Janine Grant and Peter McCaskell (1986).
2. **Water Wheels and Steam Engines: Powered Establishments in Ontario**, G.T. Bloomfield and Elizabeth Bloomfield (1989).
3. **The Ontario Urban System at the Onset of the Industrial Era, 1871**, Elizabeth Bloomfield and G.T. Bloomfield (1989).
4. **Creating CANIND71: Procedures for Making the 1871 Industrial Census Machine-Readable**, Elizabeth Bloomfield and G.T. Bloomfield (1989).
5. **Glossary of Industrial Language**, Jane Turner, Janine Grant and Barbara Sibley (1989).
6. **French-English Dictionary of Industrial Language**, Jane Turner, Janine Grant and Barbara Sibley (1989).
7. **Standard Industrial Classifications Applied to Historical Data: the Case of the 1871 Industrial Census**, G.T. Bloomfield and Elizabeth Bloomfield (1989).
8. **Industrial Leaders: The Largest Manufacturing Firms in Ontario, 1871**, Elizabeth Bloomfield and G.T. Bloomfield (1989).
9. **The Hum of Industry: Millers, Manufacturers and Artisans of Wellington County**, Elizabeth Bloomfield and G.T. Bloomfield (1989).
10. **Boundaries of Canadian Census Units in 1871**, G.T. Bloomfield (1990).

ACKNOWLEDGEMENTS

The interest and support of all who have assisted with this project are gratefully acknowledged. Janine Grant, Barbara Sibley, Jane Turner and Stephen Bellinger have worked for the project for significant periods and the quality of the final database and documentation owes much to their careful and thorough work. Marie Puddister has drawn the maps and diagrams. Peter McCaskell, first as programmer-analyst in the Department of Geography and then from Computing Services, has helped substantially with database management and programming through all phases of the project. We appreciate the shelter provided to this project by the Department of Geography, University of Guelph throughout the 1980s. We are also grateful to the Social Sciences and Humanities Research Council of Canada: Strategic Grants Program for its generous financial assistance during 1988 and 1989 which has enabled us to complete the CANIND71 database. For illustrations used in this report, we thank the Guelph Civic Museum, the Macdonald Stewart Art Centre, Mary Sutherland, and Robert Stewart.

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1 INTRODUCTION

The main purpose of this report is to show what kinds of information, for particular enterprises and to address more general questions, may be extracted from the CANIND71 database for a county-sized area.¹ Other reports in this series have focused on themes such as the relationships between industry and urbanization, the significance of the largest industrial firms, or the use of inanimate power in industry.² This report is the first to consider the mix of industrial activity in a particular place, one county in midwestern Ontario. Thus it provides a guide to what might be done for any other place of equivalent size and population in Ontario, Quebec, New Brunswick or Nova Scotia.

This case study, and the CANIND71 database from which it is derived, provide uniquely valuable snapshots of industrial activity in Canada just after Confederation, at a time of transition in technology, business organization and work discipline. It was a time when the "hum of industry" was believed to be an essential sign of a community's progress, usually associated with the benefits of railway connections. Many people at this time seem to have shared Thomas Keefer's vision of "the civilizing tendency of the locomotive":

A town has been built and peopled by the operatives - land rises rapidly in value - the neglected swamp is cleared and the timber is converted into all sorts of wooden "notions" - tons of vegetables, grains or grasses are grown where none grew before - the patient click of the loom, the busy hum of the spindle, the thundering of the trip-hammer and the roaring of steam, are mingled in one continuous sound of active industry.³

Wellington County was chosen also as a case study for several special reasons. It was the county in which most stages of coding, editing and integrating the CANIND71 database were first tried and tested, beginning with a pilot study undertaken for the second volume of the Historical Atlas of Canada project in 1982. This study of industry in Wellington County has further interest, in interpreting one of the many themes of a particular place

¹ For an explanation of the procedures used in the CANIND71 database, see Creating CANIND71: Procedures for Making the 1871 Census Machine-Readable, #4 in this series of research reports.

² See Water Wheels and Steam Engines: Powered Establishments in Ontario, #2 in this series; The Ontario Urban System at the Onset of the Industrial Era, 1871, #2 in the series; and Industrial Leaders: The Largest Manufacturing Firms in Ontario, 1871, #8 in the series.

³ T.C. Keefer, Philosophy of Railroads (1850), edited with an introduction by H.V. Nelles (Toronto: University of Toronto Press, 1972), p. 9.

for which it is now possible to explore a good many other primary sources, thanks to the efforts of the Guelph Regional Project.⁴

Wellington County in 1871 was an area of some 818,000 acres in the watershed of the upper tributaries of the Grand River system in midwestern Ontario. The population of the county grew from about 25,000 in 1851 to 63,300 in 1871 and 64,640 in 1881, then declined to a low of 54,160 in 1921 before recovering to 59,450 in 1941 and then increasing substantially to about 145,000 in 1989. For the past one hundred and sixty years, the main administrative and commercial focus of the county area has been the town and city of Guelph, which exercised such functions over a more considerable area before the separate formation of Waterloo County to the west in 1854, Grey County to the north in 1852 and Dufferin County to the northeast in 1881.⁵

Wellington County's industry is first considered in its context of time and place. We address the questions of how industry was related to other activities and phenomena in Wellington County in 1871 and how representative or distinctive Wellington County was in relation to Ontario as a whole. A second section of the report describes the kinds of information that were provided in the manuscript census for individual establishments. In a third section, we discuss some of the patterns that may be deduced by aggregating the individual data for types of industry or geographical units such as townships or urban centres. We also consider rural-urban contrasts in industrial activity, variations in the use of powered technologies and the concept of the work environment as an organizing framework.

How typical was Wellington County of Ontario as a whole in 1871? "On middle ground" was the image used by earlier commentators to describe Wellington County's landscape and character in the nineteenth century.⁶ In Gilbert Stelter's words, the county's "development appears to have been

⁴ The Guelph Regional Project created an information base of all known primary and secondary source materials for the study of Wellington County to 1940. The finding aids are machine-searchable and have also been published in two volumes: Elizabeth Bloomfield and Gilbert A. Stelter, Guelph and Wellington County: A Bibliography of Settlement and Development Since 1800 (Guelph: University of Guelph, 1988); Elizabeth Bloomfield, Inventory of Primary and Archival Sources: Guelph and Wellington County to 1940 (Guelph: University of Guelph, 1989).

⁵ Until the early 1880s, when the new County of Dufferin was formed around the county town of Orangeville, Wellington County also included Amaranth Township, what became East Garafraxa and East Luther Townships and the village of Orangeville. Thomas A. Hillman, "A statutory chronology of southwestern Ontario," Canadian Papers in Rural History 6 (1988): 343-353.

⁶ Elizabeth Waterston and Douglas Hoffman, eds., On Middle Ground: Landscape and Life in Wellington County, 1841-1891 (Guelph, 1974).

characterized by the commonplace, by processes and events that seem ordinary to residents of Ontario and other parts of Canada".⁷

Table 1
TOWNSHIPS OF WELLINGTON COUNTY

Township	Indian Alienation	First Survey	First ¹ Settler	Municipal Organization	Area ² (acres)	Population 1871
Amaranth ³	1818	1823	1827	1854	63,884	1,943
Arthur	1836	1819	1841	1850	68,823	4,376
Eramosa	1818	1819	1819	1827	45,127	3,758
Erin	1818	1819	1820	1824	70,400	5,326
Garafraxa ⁴	1818	1821	1823	1842	92,632	5,797
Guelph	1793	1828	1827	1850	42,338	2,955
Luther ⁵	1818	1837	1850	1860	89,000	1,772
Maryborough ⁶	1825	1849	1849	1854	56,775	4,418
Minto ⁷	1836	1853	1853	1857	72,587	4,861
Nichol	1793	1819	1823	1832	28,512	2,737
Peel	1793	1843	1846	1850	74,647	5,744
Pilkington ⁸	1793	1808	1819	1852	30,033	2,308
Puslinch	1793	1828	1829	1836	59,800	4,514

Sources: Compiled from Historical Atlas of Wellington County (1906); F.H. Armstrong, Handbook of Upper Canadian chronology (1967, 1985), 141-8 (after Wightman); T.A. Hillman "A statutory chronology of southwestern Ontario, 1792-1981," Canadian Papers in Rural History Volume VI (1988), 350-3; and Inventory of Primary and Archival Sources: Guelph and Wellington County to 1940. The populations and areas of urban centres are not included here: see Table 2.

Notes: 1. First legal settler.

2. **Historical atlas** (1906).

3. United with Garafraxa to 1854; detached from Wellington to form part of new County of Dufferin in 1881.

4. Divided in 1869 into two townships, West Garafraxa and East Garafraxa, the latter separating from Wellington County in 1881 to form part of Dufferin County. No municipal records earlier than 1869.

5. United with Arthur to 1860; divided in December 1880 into two townships of West Luther and East Luther, the latter being joined with Dufferin County in 1883.

6. United with Peel to 1854.

7. United with Arthur to 1857.

8. Separated from Woolwich Township (Waterloo County) in 1852.

By most measures, Wellington County in 1871 was broadly representative of much of southern Ontario rather than remarkably distinctive. At this time,

⁷ Gilbert A. Stelter, "Studying the region," in Bloomfield and Stelter, Guelph and Wellington County (1988), 1.

the county contained fourteen townships and five incorporated urban centres, summary details for which are presented in Table 1. With a population of 63,289 in 1871, the mean population density over the whole county area was 85 persons per square mile, or just under 40 per square mile for the rural areas only. Only one in five of the people in the county (21 per cent) lived in the five incorporated urban centres of Guelph, Fergus, Elora, Orangeville and Mount Forest (Table 2).⁸ The urban proportion for Ontario as a whole in 1871 was slightly higher at 24 per cent. Scores of smaller settlements were scattered through the fourteen townships that made up the county (Figure 1). The changing fortunes of these smaller hamlets and villages have been the subjects of several studies by Fred Dahms.⁹

Wellington County had roughly similar proportions of people of the main ethnic groups to those in Ontario generally in 1871. Scots and Irish were a little more important in Wellington County than in Ontario as a whole. Three in every ten people claimed Scots origin (considerably higher than the 20 per cent across Ontario); 38 per cent were reported to be Irish in origin (34 per cent in Ontario generally); and one in four of its people claimed English origin (27 per cent in Ontario as a whole). People of German origin made up under five per cent of Wellington County's population, only half the percentage in Ontario as a whole and in marked contrast to Waterloo County, its immediate neighbour to the west, where Germans comprised over half the total in 1871.

The variable patterns from place to place in Wellington County and its immediate western neighbour, Waterloo County, are illustrated in Figure 2 for each of these four ethnic groups. Each small map illustrates the presence of a particular ethnic group in relation to its strength in the total Ontario population (according to the published census for 1871), calculated as a coefficient. Townships and urban centres with a coefficient of unity (1.0) had exactly the same proportion of a given ethnic group in their population as Ontario as a whole. A coefficient of 2.0 means that a township had twice the Ontario proportion of that ethnic group while a coefficient of 0.5 indicates only half the percentage level that group formed in the total Ontario population. The patterns in Figure 2 show that the English and Irish were more typically dispersed throughout the region while the Scots and especially the Germans were more concentrated in particular localities. Wellington County appears more characteristic of Ontario as a whole in its ethnic structure. Waterloo County stands out in contrast, combining high concentrations of Scots at its southern end with very high concentrations of Germans everywhere else and low proportions of the other ethnic groups.

⁸ We have also defined the unincorporated centre of Harriston as "proto-urban" for the purposes of interpreting the 1871 industrial data. For a discussion of the rationale and procedures, see The Ontario Urban System at the Onset of the Industrial Era, #3 in this series of research reports.

⁹ See, for example, Fred Dahms, "The evolution of settlement systems: a Canadian example, 1851-1970," Journal of Urban History 7 (1981): 169-204; and Historical Background, Population Change and Agriculture: Wellington County, 1840-1976 (University of Guelph, Centre for Resources Development, 1978).

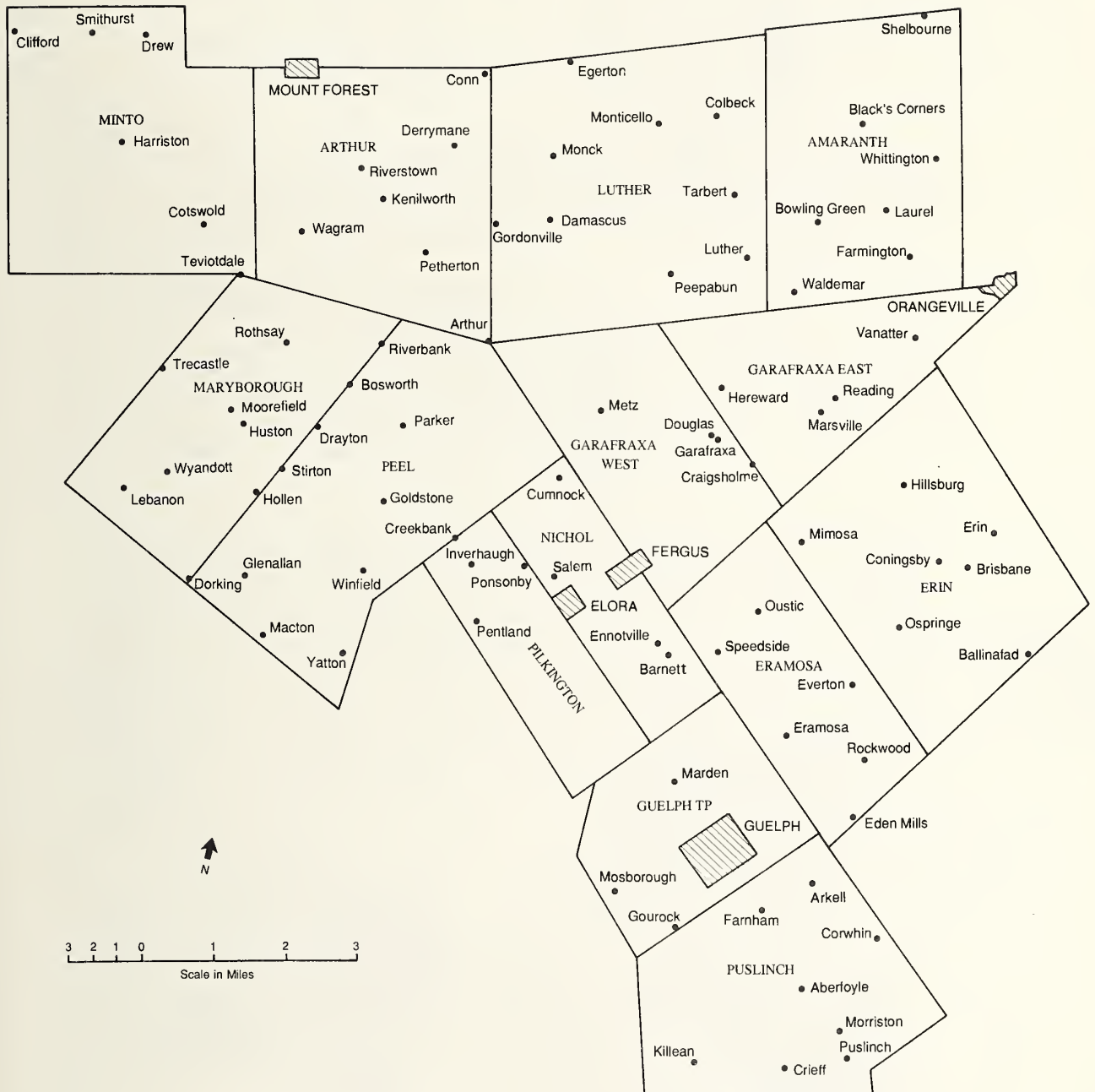
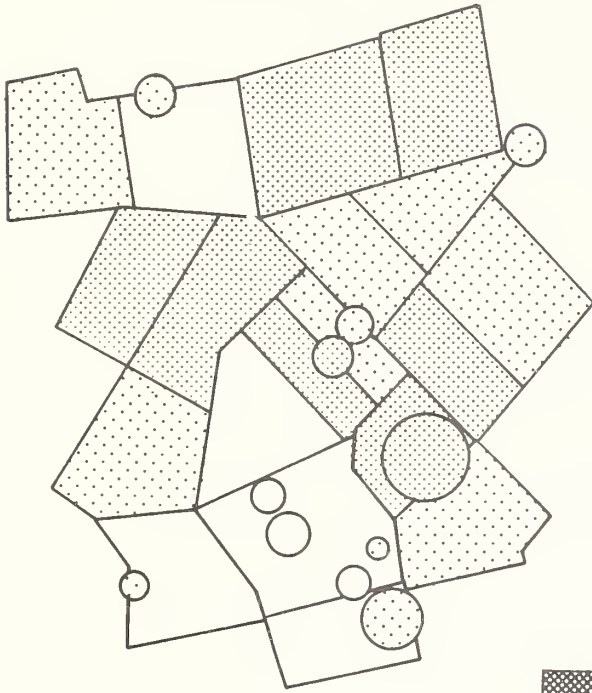
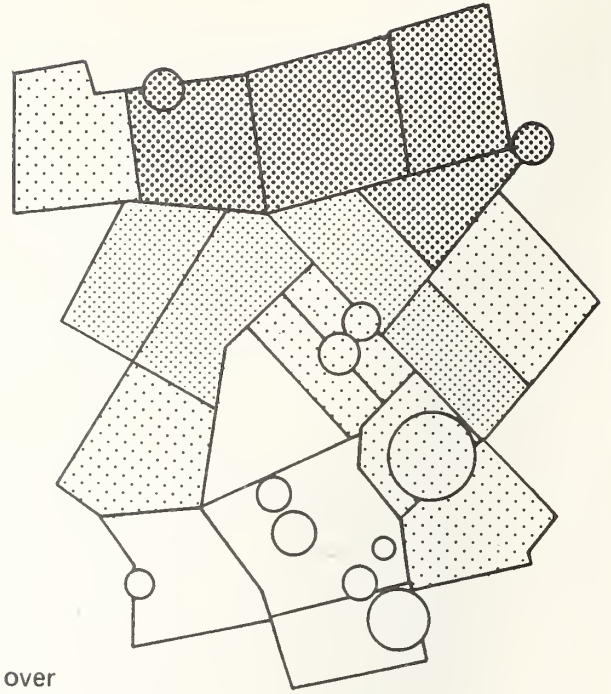


Figure 1: Townships and settlements of Wellington County, 1871

ENGLISH



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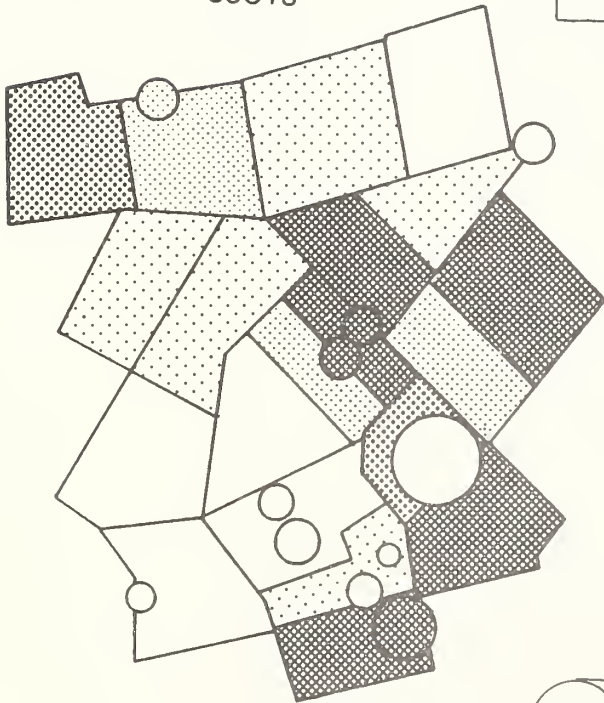
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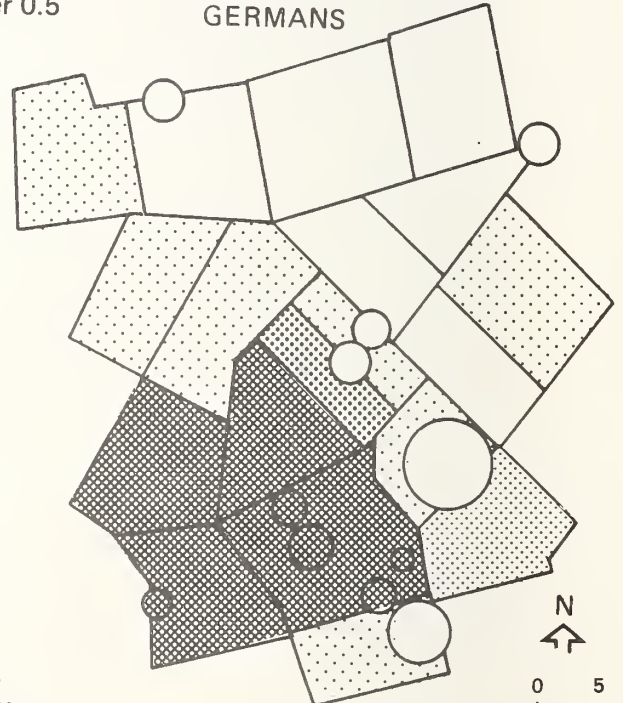
Under 0.5

Ontario Mean

SCOTS



GERMANS



Population of urban centres

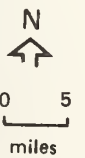


Figure 2: Ethnicity in townships and urban centres of Wellington and Waterloo Counties, 1871
Compiled from 1871 published census data.

Table 2
URBAN MUNICIPALITIES OF WELLINGTON COUNTY

Place	Village	Town	City	Population 1861	Population 1871
Guelph		1851	1879	5,076	6,878
Fergus	1858	1952		1,117	1,666
Elora	1858			1,043	1,498
Orangeville	1863	1873		na	1,458 ¹
Mount Forest	1864	1879		na	1,370
Harriston	1872	1878		na	(500) ²

- Notes:** 1. Orangeville became county town for the new Dufferin County in 1881.
 2. Harriston defined as a proto-urban centre and included in urban proportions; its population is given as estimated in Lovell's 1871 Ontario Directory but Harriston's population is also included in that for Minto Township in 1871 in Table 1.
 3. Population figures for Orangeville and Mount Forest not available in 1861 as they were not yet incorporated.
 4. For precise details of Ontario urban municipalities, such as dates of incorporation, census populations from 1851 to 1981, railway connections etc, see: Elizabeth Bloomfield and Gerald Bloomfield with Peter McCaskell, Urban Growth and Local Services: The Development of Ontario Municipalities to 1981 (University of Guelph, Department of Geography, 1983).

Wellington County was broadly representative of southern Ontario also in various measures of industrial significance. Its average value of industrial production for every person in the county was \$73.30, compared with just \$74.00 in Ontario as a whole. In terms of value added in manufacturing for each industrial worker, the Wellington County mean was \$576.18, a little higher than the Ontario mean of \$545.30. According to the occupational statistics published from the 1871 Census, the proportions of persons in the "industrial class" were roughly similar for Wellington County and for Ontario generally (Table 3). But those in the general "agricultural class" comprised over half of all persons recorded as having definite occupations in that year, a higher proportion for Wellington County than for Ontario as a whole.

Agriculture was thus the county's principal economic activity. Just over 9,000 farmers reported 384,000 acres of improved land, or 59 per cent of the total occupied area in Wellington County. Nearly 160,000 acres or nearly one quarter of the total occupied area was devoted to the cultivation of field crops, hay or potatoes (Table 4). More than half the occupiers of land in the county had between 50 and 100 acres, a significantly higher proportion in this middle-sized category than in neighbouring Waterloo County or in Ontario as a whole, where there were relatively more land holdings in both smaller and larger size classes (Table 5). A slightly higher proportion of all landholders in Wellington County (85.6 per cent) owned their land than for Ontario as a whole (83.7 per cent), but the proportion was even higher in Waterloo County at 89 per cent. Wellington County became quite notable for improved crop and livestock farming practices in the middle decades of the nineteenth century, reflected in the editing of the Canadian Farmer here and in such organizations as the

Guelph Fat Stock Club. Guelph would be chosen as the site of the Ontario Agricultural College and Experimental Farm in 1874. The county's agricultural activities were reflected in some of the more primary forms of industrial processing such as grain milling, tanning and meat packing.

Table 3
CENSUS DISTRICTS: OCCUPATIONAL CLASSES OF POPULATION, 1871
percentages

	Agricultural	Commercial	Domestic	Industrial	Professional
Wellington South	33.3	8.7	7.0	30.5	16.0
Wellington Centre	52.5	5.1	5.7	19.9	3.4
Wellington North	69.3	2.9	2.9	12.9	0.9
Wellington County	54.0	5.2	5.0	19.9	3.4
Ontario total	49.3	6.3	5.8	20.3	3.6

Table 4
CENSUS DISTRICTS: ACREAGES IMPROVED AND UNDER FIELD CROPS, 1871
percentages of occupied area
improved cropland

Wellington South	67.8	22.3
Wellington Centre	67.0	26.3
Wellington North	49.1	23.4
Wellington County	58.6	24.3
Ontario total	54.6	20.0

Table 5
CENSUS DISTRICTS: LAND HOLDINGS, 1871
percentages

	owners % all occupiers	percentages (size of holdings in acres)				
		<10	10-50	50-100	100-200	>200
Wellington South	81.9	11.6	14.0	45.7	24.4	4.3
Wellington Centre	85.3	11.1	18.2	46.7	20.9	3.0
Wellington North	86.9	5.2	18.3	55.4	18.6	2.4
Wellington County	85.6	8.4	17.7	50.6	20.3	2.9
Ontario total	83.7	11.6	22.6	41.7	19.7	4.4

If Wellington County was generally quite typical of much of southern Ontario, it also contained some internal variety which is reflected in Tables 3 to 5. The three districts into which the county was divided for electoral purposes were used also for census enumeration. They differed from one another in some interesting ways, including the ethnic composition of the population and the maturity of settlement and economic development attained by 1871. Generally, there was a gradient from south to north in age of

settlement, maturity of development and degrees of urbanization and industrialization. Wellington County forms a kind of cross-section from the earlier developed areas in the south and centre that were generally quite mature by 1871 to the northern townships that were still part of Ontario's pioneer fringe in that year.

Wellington South comprised the Town of Guelph, Guelph Township and Puslinch Township with a combined population of 14,347. Dominated by the town of Guelph that had been founded in 1827 by John Galt for the Canada Company, the southern part was generally the earliest to be settled and developed and was closest to sources of supply and to centres of administration in Toronto and Hamilton. The English formed the largest ethnic group in Guelph and Guelph Township, but more than half of the population of Puslinch Township to the south claimed Scottish origins. As one of only twelve urban centres in Ontario with at least 5,000 population in 1871, Guelph was relatively more important than it would be in the twentieth century. The town was served by two railway systems from as early as 1856. Via the Grand Trunk Railway it was linked with Toronto and Montreal in the east and ultimately Chicago via Point Edward (Sarnia) in the west while the Galt and Guelph branch line connected it via the Great Western Railway system to Hamilton and Niagara.¹⁰ The proportion of Guelph's population employed in industry was slightly above the mean for all Ontario urban centres and the town also had a significant specialization in the manufacture of machinery.

Wellington Centre included the townships of Pilkington, Nichol, Eramosa, Erin and Garafraxa and the villages of Elora, Fergus and Orangeville and had a total population of 24,458. Some eastern parts of this area had been settled by Europeans even earlier than Guelph but most of the area developed a little later, following the establishment of directed settlements at Fergus and Elora in the mid 1830s. Most of Wellington Centre was distinctively dominated by settlers of Scottish origin, though the northeastern localities that were to be joined to the County of Dufferin in the 1880s had an Irish majority. By 1871, water power potential had been developed at many points along the Grand River and its tributaries which drained much of this central division of the county (Figure 7). Fergus and Elora were connected with Guelph by the Wellington, Grey and Bruce Railway only in 1870, and Orangeville was linked to Toronto by the Toronto, Grey and Bruce Railway in the same year.

Wellington North consisted of Amaranth, Luther, Arthur, Minto, Maryborough and Peel Townships and the village of Mount Forest which had a total population of 24,484. Wellington North, farthest from points of entry and sources of supply along Lake Ontario, was the last part of the county to be settled systematically. Its relatively under-developed character is reflected in some of the data of Tables 3, 4 and 5. Slightly under half the occupied acreage of Wellington North, for example, was classified as improved in 1871, compared with at least 67 per cent in the centre and south of the county and 55 in Ontario as a whole. No railways connected points in Wellington North

¹⁰ For more details on railway connection see "Railways", chapter 4 in Urban Growth and Local Services: The Development of Ontario Municipalities (1983), 52-73.

until the late 1870s. The largest ethnic group in the all part of Wellington North was the Irish, except in Minto Township where the Scots predominated.

2 INFORMATION FOR SPECIFIC INDUSTRIAL BUSINESSES

What kinds of information were provided for the industrial businesses of Wellington County in the census manuscripts? How does their quality compare with the general standard of information for other Canadian counties and regions in 1871? Figures 3 to 6, in presenting the CANIND71 data for several enterprises of different types in Wellington County, are good illustrations of the range of variables that might have been recorded for any of the 45,000 individual firms that were enumerated in 1871 in the four provinces of Canada. Standard items of information are the type of business and name of its proprietor, its location in terms of the geographical units used in the census, details of the use of non-manual forms of power, numbers of workers (distinguished into men, women, boys and girls), number of working months in the year, and the dollar amounts of fixed and floating capital invested, wages, raw materials and products.

There was also space for naming the kinds, quantities, units of measurement and values of individual raw materials (inputs) or products (outputs) and for additional remarks or comments, though only a minority of records have much detail of this sort. The project team also determined a Standard Industrial Classification code for each record, based on a combination of the stated "type of establishment" and all the data for raw materials and products. We calculated certain "derived" variables from the basic data, notably the total number of employees, the average monthly wage per employee, and the value added in manufacturing (calculated as the value of production less the value of raw materials). All these variables are illustrated for eleven selected businesses in Figures 3 to 6 and some of them for all 736 firms in Wellington County in Appendix A-1. The note at the beginning of the Appendix explains the main variable names used in the database and in several figures and tables in this report.

How well did the census enumerators describe the industrial firms of Wellington County? We comment elsewhere on the general incidence throughout the four Canadian provinces of missing firms or of missing data for the main numeric variables.¹¹ For the basic data of numbers employed, value of fixed capital, horse power units of inanimate motive power, and aggregate values of raw materials and production the percentage of missing data or missing records is quite small. Table 6 compares the percentages of missing data for each of the main variables in Wellington County with the equivalents for all of Ontario. While Wellington County has smaller percentages missing for a few variables, the overall incidence of missing data is higher. Missing data for the number of working months in the year, number of horse power units of water-powered firms, and cost of wages were notably more common for Wellington County firms than for Ontario establishments

¹¹ Creating CANIND71: Procedures for Making the 1871 Industrial Census Machine-Readable, #4 in this series. See especially pp. 34-52 for a critique of several variables and the incidence of missing data.

Figure 3:

CANIND71 SAMPLE RECORD

proprior: **JAMES WILSON** typeest: **FLOUR/OATMEAL MILL**
 cddid: **0034** ced: **D** cdistric: **WELLINGTON CENTRE** csd: **FERGUS V**
 sic: **105/105-O** sec: **5.01** month: **12** type: **U**
 fixcap: **19000** flocap: **24000** typepow: **WATER** force: **100**
 empmen: **8** empwom: empboy: empgirl:
 totemp: **8** wages: **4400** awage: **45.83 per worker/month**
 sumrawc: **115000** sumproc: **121000** vadd: **6000**
 rawmat1: **WHEAT** runit1: rquant1: rvalue1: **75000**
 rawmat2: **OATS** runit2: rquant2: rvalue2: **40000**
 prod1: **FLOUR** punit1: **BBL** pquant1: **13000** pvalue1: **78000**
 prod2: **OATMEAL** punit2: **BBL** pquant2: **8000** pvalue2: **43000**

CANIND71 SAMPLE RECORD

proprior: **DAVID ALLAN** typeest: **DISTILLERY**
 cddid: **0033** ced: **C-1** cdistric: **WELLINGTON SOUTH** csd: **GUELPH T**
 sic: **109-D** sec: **5.01** month: **12** type: **U**
 fixcap: **35000** flocap: **60000** typepow: **STEAM** force: **40**
 empmen: **10** empwom: empboy: empgirl:
 totemp: **10** wages: **5000** awage: **41.67 per worker/month**
 sumrawc: **130110** sumproc: **170939** vadd: **40829**
 rawmat1: **GRAIN (unspecified)** runit1: **LB** rquant1: **2760000** rvalue1: **129000**
 rawmat2: **BARLEY** runit2: **LB** rquant2: **60000** rvalue2: **1110**
 prod1: **WHISKEY/SPIRITS,OTHER** punit1: **GAL** pquant1: **198000** pvalue1: **169000**
 prod2: **MALT** punit2: **LB** pquant2: **48473** pvalue2: **1939**
 comments: **DUTY INCLUDED**

CANIND71 SAMPLE RECORD

proprior: **WALTER PASMORE** typeest: **SAW MILL**
 cddid: **0033** ced: **A-1** cdistric: **WELLINGTON SOUTH** csd: **PUSLINCH**
 sic: **251** sec: **5.08** month: **5** type:
 fixcap: **500** flocap: **500** typepow: **STEAM** force: **16**
 empmen: **4** empwom: empboy: empgirl:
 totemp: **4** wages: **400** awage: **20 per worker/month**
 sumrawc: **700** sumproc: **1860** vadd: **960**
 rawmat1: **LOGS** runit1: rquant1: **700** rvalue1: **700**
 prod1: **LUMBER** punit1: **FT BM** pquant1: **150000** pvalue1: **1860**

Figure 4:

CANIND71 SAMPLE RECORD

proprior: **JANE WISSLER** typeest: **TANNERY**
 cdid: **0034** ced: **C-2** cdistric: **WELLINGTON CENTRE** csd: **NICHOL**
 sic: **172** sec: **5.04** month: **12** type:
 fixcap: **3000** flocap: **8000** typepow: **WATER** force: **10**
 empmen: **6** empwom: empboy: empgirl:
 totemp: **6** wages: **1800** awage: **25** per worker/month
 sumrawc: **6500** sumproc: **9000** vadd: **2500**
 rawmat1: **HIDES** runit1: rquant1: **1300** rvalue1: **6500**
 prod1: **LEATHER** puni1: pquant1: **2600** pvalue1: **9000**
 comments:

CANIND71 SAMPLE RECORD

proprior: **DAVID CHAMBERS** typeest: **WEAVING SHOP**
 cdid: **0033** ced: **C-2** cdistric: **WELLINGTON SOUTH** csd: **GUELPH T**
 sic: **182-W** sec: **5.05** month: **12** type: **U**
 fixcap: **400** flocap: **250** typepow: force:
 empmen: **1** empwom: **1** empboy: **1** empgirl:
 totemp: **3** wages: **500** awage: **13.89** per worker/month
 sumrawc: **1100** sumproc: **1625** vadd: **525**
 rawmat1: **YARN,WOOL** runit1: **LB** rquant1: **2000** rvalue1: **1000**
 rawmat2: **YARN,COTTON** runit2: **LB** rquant2: **250** rvalue2: **100**
 prod1: **SHIRTINGS,WOOL** puni1: pquant1: **2500** pvalue1: **1025**
 prod2: **FLANNELS, FANCY** puni2: pquant2: **1500** pvalue2: **600**
 comments:

CANIND71 SAMPLE RECORD

proprior: **MRS VICH** typeest: **DRESSMAKER**
 cdid: **0035** ced: **C-2** cdistric: **WELLINGTON NORTH** csd: **MINTO**
 sic: **244** sec: **5.07** month: **12** type: **W**
 fixcap: **40** flocap: **10** typepow: force:
 empmen: empwom: **3** empboy: empgirl: **1**
 totemp: **4** wages: **212** awage: **5.88** per worker/month
 sumrawc: **4680** sumproc: **4892** vadd: **212**
 rawmat1: **YARN,WOOL,COTTON** runit1: **YD** rquant1: **1560** rvalue1: **4680**
 prod1: **DRESSES** puni1: pquant1: **106** pvalue1: **4892**
 comments: **CHIEFLY FOR CUSTOMERS WHO FURNISH THEIR OWN MATERIAL**

Figure 5:

CANIND71 SAMPLE RECORD

proprior: G & J STEELE **typeest: CARRIAGE SHOP**
cdid: 0034 **ced: B** **cdistric: WELLINGTON CENTRE** **csd: ELORA**
sic: 329 **sec: 5.15** **month: 12** **type: U**
fixcap: 700 **flocap: 700** **typepow:** **force:**
empmen: 3 **empwom:** **empboy:** **empgirl:**
totemp: 3 **wages: 925** **awwage: 25.69 per worker/month**
sumrawc: 693 **sumproc: 3460** **vadd: 2767**
rawmat1: LUMBER **runit1: FT** **rquant1: 5000** **rvalue1: 75**
rawmat2: IRON/STEEL **runit2: TON** **rquant2: 4** **rvalue2: 200**
rawmat3: PAINT/OIL **runit3:** **rquant3:** **rvalue3: 150**
rawmat4: COAL **runit4: TON** **rquant4: 4** **rvalue2: 68**
rawmat5: TRIMMING **runit5:** **rquant5:** **rvalue5: 200**
prod1: BUGGIES **punit1:** **pquant1: 25** **pvalue1: 2500**
prod2: RIGS **punit2:** **pquant2: 6** **pvalue2: 240**
prod3: CUTTERS **punit3:** **pquant3: 18** **pvalue3: 720**
comments:

CANIND71 SAMPLE RECORD

proprior: DONALD MCMILLAN **typeest: BLACKSMITH/PLOUGH FACTORY**
cdid: 0034 **ced: F-2** **cdistric: WELLINGTON CENTRE** **csd: ERIN TP**
sic: 311/329 **sec: 5.14** **month: 12** **type:**
fixcap: 5000 **flocap: 3000** **typepow: STEAM** **force: 10**
empmen: 10 **empwom:** **empboy:** **empgirl:**
totemp: 10 **wages: 3000** **awwage: 25 per worker/month**
sumrawc: 2130 **sumproc: 10325** **vadd: 8195**
rawmat1: IRON **runit1: TON** **rquant1: 15** **rvalue1: 1000**
rawmat2: COAL **runit2: TON** **rquant2: 45** **rvalue2: 540**
rawmat3: STEEL **runit3: TON** **rquant3: 1** **rvalue3: 140**
rawmat4: LUMBER **runit4: FT** **rquant4: 10000** **rvalue4: 450**
prod1: PLOUGHS **punit1:** **pquant1: 200** **pvalue1: 4800**
prod2: CARRIAGES/SLEIGHS **punit2:** **pquant2: 54** **pvalue2: 3525**
prod3: JOBBING **punit3:** **pquant3:** **pvalue3: 2000**
comments: ALL CARRIED ON BY THE PROPRIETOR

Figure 6:

CANIND71 SAMPLE RECORD

proprior: **GUELPH SEWING MACHINE CO** typeest: **SEWING MACHINE FCY**
 cdid: **0033** ced: **C-3** cdistric: **WELLINGTON SOUTH** csd: **GUELPH T**
 sic: **315-S** sec: **5.14** month: **12** type: **U**
 fixcap: **65000** flocap: **50000** typepow: **STEAM** force: **12**
 empmen: **157** empwom: empboy: **23** empgirl:
 totemp: **180** wages: **75000** awage: **34.72** per worker/month
 sumrawc: **62000** sumproc: **204800** vadd: **142800**
 rawmat1: **CASTINGS,IRON/STEEL/BRASS** runit1: rquant1: rvalue1: **62000**
 prod1: **SEWING MACHINES** punit1: pquant1: **6700** pvalue1: **204800**
 comments:

CANIND71 SAMPLE RECORD

proprior: **LOCKMAN WILSON BOWMAN & CO** typeest: **SEWING MACHINES**
 cdid: **0034** ced: **D** cdistric: **WELLINGTON CENTRE** csd: **FERGUS V**
 sic: **315-S** sec: **5.14** month: **6** type: **U**
 fixcap: **15000** flocap: **5000** typepow: **STEAM** force: **25**
 empmen: **60** empwom: **15** empboy: empgirl:
 totemp: **75** wages: **22000** awage: **48.89** per worker/month
 sumrawc: **20000** sumproc: **75000** vadd: **55000** rvalue1: **20000**
 rawmat1: **WIRE,STEEL/STEELPLATE/IRON,MALLEABLE,WROUGHT/BRASS** CASTS
 prod1: **SEWING MACHINES** punit1: pquant1: pvalue1: **75000**
 comments: **THIS MANUFACTORY COMMENCED IN JANUARY LAST AND THE PARTIES**
CANNOT GIVE A VERY SURE ACCOUNT

CANIND71 SAMPLE RECORD

proprior: **WILLIAM BELL & CO** typeest: **ORGAN/MELODEON FACTORY**
 cdid: **0033** ced: **C-1** cdistric: **WELLINGTON SOUTH** csd: **GUELPH T**
 sic: **399-P** sec: **5.20** month: **12** type: **U**
 fixcap: **11300** flocap: **18000** typepow: force:
 empmen: **30** empwom: empboy: **2** empgirl:
 totemp: **32** wages: **16000** awage: **41.67** per worker/month
 sumrawc: **18000** sumproc: **35750** vadd: **17750**
 rawmat1: **LUMBER** runit1: **FT** rquant1: **60000** rvalue1:
 rawmat2: **VARNISH/IVORY** runit2: rquant2: rvalue2:
 prod1: **ORGANS/MELODEONS** punit1: pquant1: **500** pvalue1:
 prod2: **STOOLS** punit2: pquant2: **500** pvalue2:
 comments: **INTEND TO INTRODUCE AN ENGINE OF 18 HORSE POWER**

generally.¹² Just over 80 per cent of all the records in Wellington County had their full complement of all the basic relevant variables, compared with 84 per cent in Ontario as a whole. Only 11 per cent of Wellington County records had anything in the Comments or Remarks field, compared with 21 per cent in Ontario generally.

Table 6
MISSING DATA IN CANIND71 DATABASE (percentages)

Variable	Ontario	Wellington County
PROPRIOR	0.5	0.1
MONTH	0.9	4.1
FIXCAP \$	5.6	5.2
FLOCAP \$	22.5	25.2
FORCE if TYPEPOW = WATER	11.8	16.4
FORCE if TYPEPOW = STEAM	1.1	-
TOTEMP	0.5	0.7
WAGES \$	6.0	10.3
SUMRAWC \$	3.5	3.8
SUMPROC \$	0.9	1.4
AVWAGE (derived)	8.8	12.2
VADD (derived)	4.5	4.2
Composite (non-power)	17.7	21.9
Composite (powered)	11.7	12.3
COMPOSITE (merged)	16.1	19.4

Note: Composite measure of missing data based on variables of FIXCAP, TOTEMP, MONTH, WAGES, SUMRAWC, SUMPROC and (if establishment reported power) FORCE.

Records derived from the manuscript census of industrial establishments in 1871 vary enormously in the amount of detail for raw materials and products. The 1871 census schedules allowed space for enumerators to complete details of the quantities as well as the dollar values of raw materials and of manufactured products. But the census organizers anticipated problems with the returns for this kind of information, stating in the "Instructions to

¹² We may guess at the reasons for missing data in some cases. Presumably most of the cases in which no employees were reported were small artisanal craftshops, in which the proprietor did not reckon himself or herself to be an employee. The same may be true for the small number of establishments in which only boys or girls were reported as employees but which must really have had adult proprietors. For the purposes of analysis, some adjustments might be made for these missing data but we have not interpolated them.

Officers" that "in many instances the raw materials or articles manufactured are of such a multifarious character that they must be lumped together and entered by the value".¹³ Significantly, the columns for values of raw materials and values of products are headed "Aggregate value". The census enumerators handled this part of the industrial schedule more variably than any other. Some made considerable efforts to ascertain and record the types, quantities, units of measurement and values of component raw materials and manufactured products, and to set these out systematically and clearly. Others simply named one or a string of several materials or products but did not specify separate quantities or values.

How good are the details of component raw materials and products for the industrial establishments of Wellington County? As in the vast majority of the records in the CANIND71 database, details for raw materials could be fitted into one set of fields, as could details for products. Only in 4.7 per cent of Wellington County records (6.5 per cent of all in Ontario) were two or more sets of fields required for entering details of products or raw materials. The proportion of records in which enumerators provided considerable detail of inputs and outputs was even smaller. There were no cases in Wellington County among the 35 establishments in all four provinces of Canada for which at least five raw materials and five products were listed with their quantities and/or values in the 1871 manuscript census schedules.

Details for raw materials and products are illustrated in the eleven examples of Wellington County records reproduced here from the CANIND71 database. These have been selected to represent various industrial types as well as interesting types of information. They tend to be more detailed than the majority of records in the database. For example, the sparse amount of detail given for Jane Wissler's tannery in Nichol Township or Walter Pasmore's saw mill in Puslinch Township is more representative of the general run of other records than the more specific information provided for several other firms. A good many records in the whole database provide only a string of raw materials and one aggregate value for each of raw materials and products. For the Lockman, Wilson & Bowman sewing machine factory in Fergus, for example, we are told only that unspecified quantities and values of steel wire, steel plate, malleable and wrought iron and brass casts, valued in total at \$20,000, were used to make an unknown quantity of sewing machines with a total value of \$75,000.

In some of these cases, even those reported as simple strings of raw materials or products, the lists give us a glimpse of the current technology and local markets for particular manufactured commodities. Examples include the significant activity of coopers, saddlers and tinsmiths in making commonly used objects, especially containers, out of wood, leather and metal. Coopers used staves and headings of ash, basswood, cedar, maple, oak or pine wood together with metal hoops to make tubs, firkins, barrels (for flour, beer, whiskey, pork or potash), pails, kegs, casks, sap buckets or even tierces. Saddlers used leather, various findings or furnishings and hardware such as buckles and bits, as well as paint and varnish to make saddles, harnesses, halters, whips, collars

¹³ "Manual", Canada Sessional Papers (1871): 139.

and hames. Tinsmiths used tinplate, Canada plate, sheet iron, galvanized iron, brass, copper, wire, zinc and solder to make stoves, stove pipes and stove furniture, heaters, lead pipes, water pipes, pipes for distilleries and breweries, roofing and eaves troughs, tinware, copper ware, cheese vats, kettles, pots, pans and other hollowware.¹⁴

In other cases, we may note the potential of these data for calculating unit prices of inputs and outputs if units of measurement and quantities as well as dollar values are stated for particular raw materials and products. For example, the information provided for David Allan's distillery in Guelph specifies how many pounds weight of grain including barley, at an average cost of \$2.17 per pound, were used to produce 198,000 gallons of "whiskey" and other spirits valued at \$169,000 and 48,472 pounds of malt worth \$1,939. A note in the Comments field tells us that the stated price of the whiskey included excise duty.

Similarly, the information for the Steeles' carriage shop in Elora or Donald McMillan's plough and carriage works in Erin Township, is detailed to a rare degree. It allows one to deduce and compare the unit costs of per foot of lumber or per ton of iron, steel and coal as well as the average selling cost of buggies, cutters, ploughs and rigs. The Steeles bought four tons of coal for \$17 a ton while McMillan was able to buy his larger quantity of 45 tons for \$12 per ton. The Steeles' buggies were sold at an average \$100, their rigs and cutters for an average \$40, while McMillan's ploughs apparently sold for \$24 each. Noticeably better detail for inputs and outputs was recorded for Wellington County firms engaged in metal working and in making machinery and transport equipment than for firms in other types of industrial activity. This finding matches a similar observation for the largest firms in Ontario.¹⁵

In some of the records in which there are no entries (or very low values) for the aggregate cost of raw materials, this can be interpreted as referring to custom work, in which the clients brought the materials to the shop to be processed or made up. Strictly, enumerators were instructed to enter the real value of the raw materials or products, regardless of whether these amounts

¹⁴ English-language terms used by the 1871 census enumerators for "kind of industrial establishment", "kind of raw material" and "kind of product" have been compiled into the Glossary of Industrial Language by Jane Turner, Janine Grant and Barbara Sibley of the project staff, # 5 in this series of research reports. Most equivalent terms used in the French-language manuscript schedules are listed in French-English Dictionary of Industrial Language, # 6 in the series.

¹⁵ Industrial Leaders: The Largest Manufacturing Firms in Ontario, 1871, #8 in this series. One reason for the more specific information may be that individual businesses of this type usually had a greater diversity of products than other firms. Though a proprietor might call himself a blacksmith or his business a foundry, he often made some combination of farm machinery, carriages, wagons and sleighs and even engines, boilers and stoves. For firms in the metal trades, there was thus a greater variety of products to record, and often of raw materials as well.

passed through the accounts of the proprietor.¹⁶ However, in practice it must have been difficult to get information from proprietors of grist and carding mills who worked for a toll or proportion of the grain or wool that they processed. Similarly, tailors and dressmakers used fabric and other material provided by their customers. The enumerators sometimes refer, in the Remarks column, to the practice of custom work and the difficulties of obtaining accurate figures for the value of raw materials and products (see Mrs Vich's record in Figure 3, for example).¹⁷

Appendix A-1 presents a listing of all the 736 establishments of Wellington County in 1871. They are sorted in the alphabetical order of the proprietor's name, but only summary details can be printed in the available space. Details are the name of proprietor, type of establishment, Standard Industrial Classification code, type of power and units of horse power where applicable, total number of employees, and dollar values of fixed capital, wages, total raw materials, total products and calculation of the value added in manufacturing.

How accurate and complete is this list of industrial enterprises in Wellington County in 1871? We may supplement and compare the CANIND71 database derived from the census manuscripts for industrial establishments with information from contemporary directories. For the whole province, Lovell's 1871 Province of Ontario Directory is a valuable reference work, while county and local directories for the period of the late 1860s and the early 1870s include those compiled or published by Irwin and Burnham (1867), A.O. Loomis (1871), J.H. Hacking (1873) and R.M. Charlton (1875).¹⁸ The information may also be compared with that in the R.G. Dun reference books of credit ratings for 1871.¹⁹

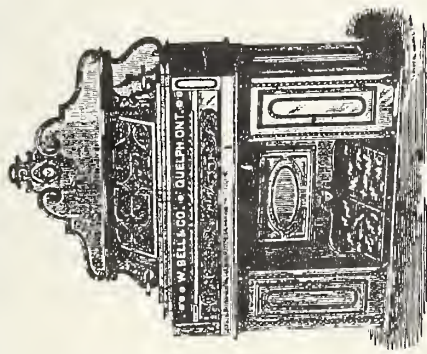
¹⁶ See page 4 and footnote 12 in Creating CANIND71, #4 in this series.

¹⁷ In such cases, for the purposes of statistical analysis, the value of production entered might be interpreted rather as a measure of added value. The data for our derived variable of VADD are naturally affected by under-reporting of values for raw materials and products, especially for businesses engaged in custom work. The value of VADD (calculated only for records in which neither SUMRAWC nor SUMPROC was missing) is negative in a significant number of such cases.

¹⁸ Irwin and Burnham Publishers, Gazetteer and Directory of the County of Wellington (Toronto: Henry Rounsell, 1867); A.O. Loomis and Company, Gazetteer and Directory of the County of Wellington (Hamilton: A.O. Loomis, 1871; reprinted 1971); J.H. Hacking, Directory of the Town of Guelph (Guelph: Guelph Advertiser, 1873); William Taylor, Charlton's Gazetteer, Business, Street and General Directory of the Town of Guelph (Toronto: R.M. Charlton, 1875). For a discussion and listing of directories for Wellington County, see Inventory of Primary and Archival Sources (Guelph, 1989): 357-365.

¹⁹ R.G. Dun and Company, later Dun and Bradstreet, Reference Books, quarterly from 1865. The Archives of Ontario has microfilmed all extant reference books from 1865 to 1978.

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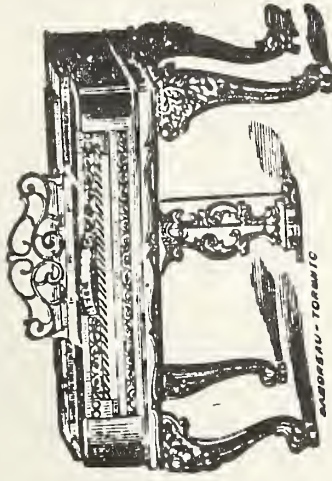
GUELPH, ONT

Received at Kingston Provincial Exhibition for 1871 A SILVER MEDAL and ALL THE FIRST PRIZES. . . . At London Western Fair, a DIPLOMA and THE FIRST PRIZES. . . . At the Central Exhibition, Guelph, three out of the FIRST PRIZES, for the Best Melodeon and Best Cabinet Organ of any kind. . . . At the Great Central Fair, Hamilton, a DIPLOMA and ALL four first for Music, viz: Both first for Organs, and first for best Melodeon of any kind. Also, two Extra Prizes and the only Diploma awarded by the Judges for general excellence.

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HARMONIUM** or Large Cabinet Organ and **FIRST
PRIZE** for the **BEST MELODEON**.

For Price List, &c., address

WM. BELL & Co.,
Guelph, Ont.

Plate 1: Directory evidence of William Bell's organ and melodeon factory: left from the *Loomis Gazetteer and Directory of the County of Wellington 1871*, p.8; right from *Lovell's Dominion of Canada Directory 1871*, p. 2533.

☞ DIRECTORY ☞ COUNTY OF WELLINGTON 1871-2

MISSSES McLEAN & MITCHELL,
MILLINERS AND DRESSMAKERS
ELORA STREET, HARRISTON, ONT.

Dominion Fancy Store,
UPPER WYNDHAM STREET, GUELPH, ONT.
A full assortment always on hand. Agent for the celebrated Wanzel and
other Sewing Machines. MRS. WM. WRIGHT, Proprietress.

BERLIN WOOL & FANCY GOODS STORE.

MRS. HUNTER,
DEALER IN WOOLS OF ALL DESCRIPTION,
FANCY GOODS, TOYS, &c.

Market Square, Guelph.

Stamping done to order. A large and varied assortment always on hand.

M. SHEPPARD,
WATCH-MAKER AND JEWELER,

A fine assortment of Watches, Clocks and Jewellery always on hand.
Agent for the celebrated American Watches.

CEDDES ST., ELORA, ONT.

MRS. KYLE,
(FORMERLY MRS. MOVES),

Dealer in and manufacturer of

Ladies' Underclothing,
Childrens' Suits,
Chignons, Switches,
Brushes, Berlin Wools,
Baskets, Jewellery,
And other Fancy Goods.

A good stock always on hand. WEST MARKET SQUARE.

MRS W. F. GALBRAITH,
GROCER AND PROVISION DEALER, PAISLEY STREET,
GUELPH, ONTARIO.

MRS. GEORGE SINCLAIR,

DEALER IN

Staple and Fancy Dry Goods, Millinery and Mantles,

CHOICE FAMILY GROCERIES.

ELORA, ONTARIO.

MRS. C. IRVING,
Millinery and Dressmaking. I have a Select Stock of Millinery, com-
prising all the Latest Styles in Bonnets, Hats, Flowers, Feathers, Ribbons,
Shapes, Dress Patterns, &c., at the very lowest figure. Dressmaking promptly
attended to. Metcalf Street, Elora.

MISS A. SEVERIGHT,

Millinery and Berlin Wool Establishment,

Next door to the Post Office,

Metcalf Street, - - - - Elora, Ontario.

Discrepancies can sometimes be observed between the name of the proprietor or business, as recorded by the census enumerator, and as listed in directories or Dun reference books. Such comparisons reveal considerable variation in the spelling of personal names that suggest that census enumerators often recorded phonetic versions of the names they were given in spoken conversation. For example, the proprietor recorded as Mrs Vich of Harriston in Minto Township is given the more plausible spelling of Veitch in the Loomis directory. More serious are the complete absences of some businesses from one source or another, especially considering that the three sources were compiled concurrently. Users should be wary of assuming that any directory or the manuscript census contains a complete and infallible list of businesses.

We compared the 1871 manuscript census evidence of industrial enterprises for Guelph and Wellington County with details in the Loomis directory, which was closest to the census in date. We were able to find 63 per cent of all the census records in the Loomis directory, but significantly higher percentages of about 90 per cent in the urban centres of Guelph, Fergus and Elora.²⁰ Small discrepancies can be noted, too, between the occupations given in the directories or business types identified in the Dun reference books and the types of establishment recorded in the census schedules. Especially in rural areas, some farmers also produced sawn lumber, potash or lime as part-time or seasonal operations. Such sidelines may have been recorded by the census enumerator but are usually not reflected at all in the other sources.

Moreover, the compilers of the directories and the Dun reference books seem to have had something of a gender bias compared with the census enumerators. Only two of the 18 female proprietors of industrial businesses recorded in the manuscript census for Wellington County could be traced in directories under their own names as associated with any industrial enterprise. These were Mrs Vich/Veitch, dressmaker of Harriston village in Minto Township, and Mary Shepherd/Sheppard who had a watchmaker shop in Elora. Jane Wissler, who was stated by the census enumerator to be proprietor of both a saw mill and a tannery of well above-average size and importance at Salem in Nichol Township, was not clearly distinguished as a woman in any of the directories.

Directories and assessment rolls are essential supplements to the manuscript census if one needs to locate industrial businesses more closely than by the township or urban municipality. Only they can provide at least approximate street addresses in urban places or names of small hamlets or concession and lot numbers in rural areas. While the manuscript census was organized by subdivisions of township, towns or villages called census enumerators' divisions (these have been coded in the CANIND71 database), no maps or verbal

²⁰ This may be compared with the finding of Cross and Dudley that only 60 per cent of the individuals in a 1871 census sample were listed in Lovell's 1871 directory for Montreal. D.S. Cross and J.G. Dudley, "Comparative Study of Street Directories and Census Returns for 1871", Urban History Review 3 (1972): 12-16.

descriptions of these geographical units have survived.²¹ For detailed spatial analysis of particular urban or rural areas, for example in Figures 10 to 13, one must use a combination of the census manuscripts, directories and assessment rolls.

Other evidence of industrial establishments identified in the 1871 census manuscripts may also be sought among surviving primary and archival records. The Guelph Regional Project found that "most of the business records traced for [its] Inventory [of Wellington County] are mere fragments of the substantial paperwork their enterprises must have generated".²² On that understanding, we can match a surprising number of the industrial establishments enumerated in 1871 with at least some primary records from the later nineteenth century. Records classified under industrial businesses in the Inventory include some for larger firms in Guelph such as David Allan's flour mill and distillery, the Bell Organ Company, the Robert Stewart Lumber Company, George Sleeman's Silver Creek Brewery, the Guelph Sewing Machine Company, Charles Raymond's sewing machine factory and Levi Cossitt's agricultural machinery works. Other enterprises for which some records of the period survive are D.M. Potter's Elora Foundry, the Hortop mill at Everton, the Mickle saw mill in Guelph Township, the Templin wagon shop in Fergus, and blacksmiths such as Caleb Chase of Guelph, McGregor of Douglas (later Belwood), and Taylor & White of Clifford in Minto Township. In a good many of these cases the business records were preserved incidentally as part of larger family record collections. This is true of records for the Yeomans family enterprises in Mount Forest. The large collection of Yeomans records in the Wellington County Archives contains some items relating to a family drugstore business but nothing about the significant cluster of grist mill, saw mill, carding and fulling mills and lime kiln run by David Yeomans in 1871 that made him the leading entrepreneur of Mount Forest in that year.

The enterprises recorded in the Ontario portion of the CANIND71 database may also be related to the admirable indexes to the 1871 nominal census

²¹ For a discussion of the geographic units used in the 1871 census, see Boundaries of Canadian Census Units in 1871, #10 in this series of research reports. Census sub-districts usually coincided with legally defined units such as townships, towns, villages or wards (in the larger urban centres) in Ontario. The census districts and sub-districts used in the other three provinces are harder to compare with other territorial units. Census sub-districts were usually subdivided into two or three tracts, for each of which an individual census enumerator was responsible. These tracts, known as divisions at the time and as CEDs (census enumerators' divisions) in this project, were not defined or mapped in any surviving records. Only with very careful field work, effectively retracing the steps of the census enumerator on his rounds, could one reconstruct the boundaries of these small units. A few conscientious enumerators gave details in the Remarks column of street address in urban areas or of small village and hamlet locations in rural districts, but none of the Wellington County enumerators did so.

²² Elizabeth Bloomfield, "Business records", Inventory of Primary and Archival Sources: Guelph and Wellington County to 1940 (Guelph, 1989), 142.

schedules that have been produced for Ontario counties by the Ontario Genealogical Society (OGS). For Wellington County, 15,576 heads of families or "strays" (persons in a household with a surname different from the head of the family) are listed, with details of surname, forename, sex, age, birthplace, religion, origin and occupation as well as geographical and page references to the census manuscripts.²³ Listings of surnames such as those in Appendix Table A-1 or the OGS publication prompt questions about the ethnic mix of the population in particular counties and districts and even of possible relationships between ethnicity and entrepreneurship. In common with most other local districts in Ontario, Wellington County contained a mosaic of people of several ethnic origins. But the proportions in that mosaic could vary dramatically or more subtly from place to place. As in Ontario as a whole, the most numerous groups in Wellington County were the Irish, the English, the Scots and the Germans (see Figure 2).

3 PATTERNS OF INDUSTRIAL ACTIVITY

Historical researchers who are more interested in the aggregate patterns and generalizations of industrial activity may group individual enterprises in the CANIND71 database on the basis of their geographical location, industrial classification or other characteristics such as size and use of power. The structure of the CANIND71 database allows the user to retrieve data for individual firms by themselves or in their contexts of industry type and geographical areas. It is also possible to sum data for single firms by their type of industry or geographical area, or by their size, use of power or other characteristics into aggregates that may be compared with aggregate data for other areas. These capabilities are illustrated in the various tables, graphs and maps.

Geographical location

Table 7 presents the total summary data for each township or incorporated urban place in Wellington County in 1871. These data might be analyzed further in relation to other characteristics of population, resources and agriculture in these areas. They may also be used with equivalent data for later census years to study change through time.

Industry types

The Standard Industrial Classification (SIC) code that was added to each record in the CANIND71 database is vital for retrieval and analysis of records in the same or related lines of business. The 1871 census organizers attempted no logical organization of industrial types, and not until the 1920s were Canadian census reports organized by anything other than an alphabetical list of industrial products.²⁴ Understandably, there were some problems in applying

²³ Bruce Elliott, ed. and Marjorie Kohli, coord., Index to the 1871 Census of Ontario: Wellington (Toronto: Ontario Genealogical Society, 1989).

²⁴ Dominion Bureau of Statistics, Standard Industrial Classification Manual (revised edition, 1970). For a full discussion of our application of this system to the 1871 census, see Standard Industrial Classifications Applied to Historical Data: the Case of the 1871 Industrial Census, #7 in this series of research

Table 7: Wellington County: summary of industrial data, 1871

WELLINGTON COUNTY: SUMMARY DATA FOR MUNICIPALITIES, 1871

CDID	CED	CSD	FORCE	FIXCAP	FLOCAP	EMP MEN	EMP WOM	EMP BOY	EMP GIRL	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD	OBSERV
O033	A	PUSLINCH	58	29161	14900	62	7	3	4	76	17413	20445	50755	28510	35
O033	B	GUELPH TP	127	88350	59250	83	1	1	.	85	16928	263440	303180	39740	15
O033	C	GUELPH T	608	485606	675045	876	175	80	4	1135	376587	1060317	1833170	769353	109
O033			793	603117	749195	1021	183	84	8	1296	410928	1344202	2187105	837603	159
O034	A	PILKINGTON	43	1596	510	14	1	2	.	17	649	1855	4742	2437	8
O034	B	ELORA V	240	119230	108150	139	14	8	1	162	41760	354335	479358	124373	41
O034	C	NICHOL	176	54440	68206	126	.	4	1	131	24572	207349	287331	79982	37
O034	D	FERGUS V	462	147835	115700	234	37	9	1	281	85378	313060	509402	196342	42
O034	E	ERAMOSA	325	91400	56105	109	18	13	6	146	22049	160387	226479	66030	55
O034	F	ERIN TP	167	55425	28315	114	6	1	.	121	19953	88276	149593	60796	62
O034	G	GARAFRAXA W	105	35315	24800	42	1	1	.	44	9750	62061	95571	33510	22
O034	H	GARAFRAXA E	1	2560	800	17	2	.	.	19	1920	970	3870	2330	10
O034	I	ORANGEVILLE	132	29330	37070	143	18	12	.	173	40140	108510	200580	87315	48
O034			1651	537131	439656	938	97	50	9	1094	246171	1296803	1956926	653115	325
O035	A	MARYBOROUGH	351	51885	18075	120	20	16	9	165	22773	58696	109594	50898	61
O035	B	PEEL	184	38387	19016	93	12	8	.	113	17910	43709	79695	35986	58
O035	C	MINTO	268	49513	25213	123	23	9	1	156	22964	72179	126958	52979	71
O035	D	ARTHUR TP	148	47150	8725	51	.	9	.	60	8632	39364	58090	18426	19
O035	E	MOUNT FOREST	110	54950	22700	86	4	4	.	94	23010	51850	97812	45962	23
O035	F	LUTHER	45	6908	4230	16	2	.	.	18	3915	5805	13893	8088	10
O035	G	AMARANTH	65	7720	1330	13	.	.	.	13	2050	1615	5975	4360	10
O035			1171	256513	99289	502	61	46	10	619	101254	273218	492017	216699	252
O035			3615	1396761	1288140	2461	341	180	27	3009	758353	2914223	4636048	1707417	736

a 1970 classification to the conditions of a century earlier. The more rudimentary level of economic organization in 1871 meant that many enterprises combined industrial activities that would more typically be separated in specialized businesses by 1970. In addition, the repairing of all kinds of goods and equipment was more integrally associated with manufacturing in 1871 than later.

The 1970 industrial classification system was adapted to the conditions of 1871 in two main ways. First, suffixes of hyphen and capital letter were added to the basic 3-digit code to give greater specificity, a brewery (109-B) being distinguished from a distillery (109-D), for example. Secondly, an establishment which combined two or more products or services was given the SIC codes of the two most important linked by a slash (/), so that a flour mill-cum-distillery is represented as 105/109-D. Common compound codes used to describe enterprises that combined two or more principal types of products were:

- 105/105-O (flour and oatmeal mill),
- 107/108-C (bakery and confectionery),
- 179-S/179-T (saddlery/trunkmaking),
- 244/249-M (dressmaking and millinery),
- 249-M/244 (millinery and dressmaking),
- 251-S/259-C (shinglemaking and cooperage),
- 251/251-S (saw mill and shinglemaking),
- 254/261 (sash, door and blind factory combined with furniture and cabinet making),
- 261/329 (cabinet and carriage making),
- 307-S/311 (manufacture of stoves and agricultural implements)
- 311/329 (agricultural implement and carriage making)
- 329/896 (carriage making and blacksmithing).

The appropriate code was determined by study of both the stated kind of establishment and the actual products reported in each case. "Type of establishment" information alone could be quite misleading, as this term was sometimes an occupational label which did not really describe the actual products. Thus a woman might be described as a "milliner" but if the products of her business included only dresses and other women's clothing rather than bonnets, hats and women's head-dresses, she would be assigned a code of 244 for women's clothing and not 249-M for millinery. Or a business described very generally as a "foundry" would be given a code of 294 only if its products were primarily iron castings. But more typically its products were fabricated metal products such as stoves (307-S) or machinery such as agricultural implements (311). Or one who was by trade a blacksmith and so recorded in the kind of establishment column may have had opportunities to make all kinds of metal goods, often including carriages and wagons. If such a person made definite numbers of carriages or other metal products, his business would be assigned

reports. The assigning of the Standard Industrial code was clearly a very different task from the transcription work in most other fields of the database. The SIC codes first assigned by the staff were later subjected to computer-assisted global editing in which the whole database or major parts of it were sorted or indexed on SIC code. By examining the coding of records in their full classificatory context, anomalies could be detected more efficiently.

the appropriate and more specific SIC code of 329 rather than "896" which was reserved for a blacksmith engaged only in "country work and repairs".

The SIC code is the means by which industrial establishments of particular types have been retrieved and sorted in size order. When the suffixes and compound codes were used to describe industry type as specifically as possible, a very large number of total SIC codes was reached. In coding Wellington County's businesses in 1871, 95 different SIC codes were used, compared with over 700 in all of Canada. Appendix Table A-2 presents a series of listings for the more common of these types in Wellington County -- flour mills, distillers and brewers, tanneries, saddlers, boot and shoe makers, textile producers, clothing makers, saw mills, coopers, planing mills, furniture makers, tinsmiths, machinery makers, carriage and wagon makers, brick or lime kilns, house builders and blacksmiths. Each of the industry listings is sorted in order of value of output from the largest producers down. Some of these types of industry are discussed further in later sections of this report.

Table 8a
**STANDARD INDUSTRIAL CLASSIFICATION:
MAJOR GROUPS AND SIC CODES**

Major Group SEC	SIC codes
Division 1 Agricultural Services	021-029
Division 2 Forestry	031-039
Division 3 Fishing	041-049
Division 4 Mines, Salt Wells etc	051-099
Division 5 Manufacturing Industries	
5.01 Food and Beverages	101-109
5.02 Tobacco Products	151-159
5.04 Leather Industries	171-179
5.05 Textile Industries	181-189
5.06 Knitting Mills	231-239
5.07 Clothing Industries	241-249
5.08 Wood Industries	251-259
5.09 Furniture Industries	261-269
5.10 Paper Industries	271-279
5.11 Printing and Publishing	281-289
5.12 Primary Metal Industries	291-299
5.13 Metal Fabricating	301-309
5.14 Machinery Industries	311-319
5.15 Transportation Equipment	321-329
5.17 Non-metallic Minerals	351-359
5.18 Petroleum & Coal Products	361-369
5.19 Chemical Industries	371-379
5.20 Miscellaneous Manufactg	391-399
Division 6 Construction Industry	401-499
Division 7 Gas and Water Utilities	572-579
Division 8 Trade (incl repair)	601-699
Division 10 Personal/business services	861-899

Table 8b:

WELLINGTON COUNTY: INDUSTRIAL STRUCTURE, 1871

15:30 TUESDAY, FEBRUARY 20, 1990

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	OBSERV		FORCE		FIXCAP		TOTEMP		SUMPROC		VADD	
	SUM	PERC- ENT	SUM	PERC- ENT	SUM	PERC- ENT	SUM	PERC- ENT	SUM	PERC- ENT	SUM	PERC- ENT
SEC												
5.01	68	9.2	1516	41.9	515895	36.9	332	11.0	2300593	49.6	320795	18.8
5.02	1	0.1	.	.	.	.	4	0.1	4290	0.1	2690	0.2
5.04	112	15.2	132	3.7	101590	7.3	310	10.3	379312	8.2	179267	10.5
5.05	85	11.5	272	7.5	95887	6.9	266	8.8	186854	4.0	84116	4.9
5.06	1	0.1	3	0.1	500	0.0	6	0.2	2400	0.1	900	0.1
5.07	61	8.3	.	.	25956	1.9	289	9.6	217540	4.7	99475	5.8
5.08	110	14.9	1273	35.2	169025	12.1	393	13.1	315802	6.8	193534	11.3
5.09	17	2.3	42	1.2	20500	1.5	44	1.5	28320	0.6	22094	1.3
5.11	11	1.5	.	.	37050	2.7	58	1.9	4858	1.0	32327	1.9
5.12	5	0.7	30	0.8	13200	0.9	45	1.5	42600	0.9	32275	1.9
5.13	24	3.3	16	0.4	27012	1.9	69	2.3	70546	1.5	46458	2.7
5.14	31	4.2	251	6.9	217000	15.5	572	19.0	576597	12.4	397999	23.3
5.15	54	7.3	39	1.1	58831	4.2	208	6.9	128983	2.8	92830	5.4
5.17	39	5.3	8	0.2	10850	0.8	107	3.6	35122	0.8	24532	1.4
5.18	2	0.3	20	0.6	13000	0.9	14	0.5	45800	1.0	16800	1.0
5.19	10	1.4	5	0.1	5105	0.4	23	0.8	24653	0.5	10571	0.6
5.2	5	0.7	.	.	15640	1.1	68	2.3	105950	2.3	70440	4.1
6	10	1.4	8	0.2	6970	0.5	55	1.8	41350	0.9	27815	1.6
7	1	0.1	.	.	30000	2.1	2	0.1	1040	0.0	-88	-0.0
8	4	0.5	.	.	2150	0.2	4	0.1	1650	0.0	895	0.1
10	85	11.5	.	.	30600	2.2	140	4.7	77988	1.7	51692	3.0
ALL	736	100.0	3615	100.0	1396761	100.0	3009	100.0	4636048	100.0	1707417	100.0

For a simpler summary of industrial structure, the precise SIC codes may be aggregated into some 20 major industry groups that are called sectors (coded SECs) in the project. Table 8a illustrates how the individual SIC codes are combined into major groups. Table 8b presents a summary of the major industry groups of Wellington County with data for numbers of establishments, horse power units on non-manual power, total numbers of workers, value of fixed capital investment, gross value of production and value added in the manufacturing process. In each case, both the absolute numbers and the percentages of the totals are given, enabling one to compare the industrial structures of regions, towns or whole provinces and to determine the distinctive significance of particular types of industry from place to place.

When Wellington County's summary industrial structure is compared with that of Ontario as a whole, we find that three sectors were significantly stronger locally than generally in the province. Foods and beverages SEC 5.01, reflecting the strength of local mills, breweries and distilleries, registered 1.5 times their average level across Ontario. Miscellaneous industries (SEC 5.20), reflecting the local manufacture of musical instruments, were about twice their average level throughout the province. The making of machinery (SEC 5.14), especially sewing machines, was even more distinctively concentrated, with Wellington County having 3.5 times the average level for Ontario as a whole. Nearly one third of Guelph's industrial workers (and 37 per cent of those in Fergus) were employed in the machinery sector, a percentage matched or exceeded only in Oshawa (36.5) and a few smaller Ontario towns such as Smith's Falls (43.3), Mitchell (40.1), Aurora (35.0), Brampton (32.5) and Newcastle (31.4).²⁵ Some sectors were relatively under-represented in Wellington County -- the wood and furniture industries and metal fabricating most notably -- while more ubiquitous sectors such as leather, textiles, clothing and blacksmithing were present in roughly the same proportions as in Ontario generally.

Size of business

Wellington County's industrial structure was dominated by hundreds of small craftshops -- the blacksmiths, tinsmiths, bakers, saddlers, shoemakers, tailors, milliners, weavers and knitters, coopers, carpenters, carriage and wagon makers -- which also made up by far the majority of Canada's establishments in 1871.

Most industrial establishments in 1871 were very small. The average number of employees in each establishment in Wellington County was 4.1 (for Ontario as a whole it was 4.4). Nearly one in every three workplaces in Wellington County was a one-worker shop and 84 per cent had five or fewer workers, slightly smaller percentages than in Ontario generally. Only three businesses in Wellington County (under half of one per cent) employed over 50 workers but these accounted for 11 per cent of all industrial workers and 14 per cent of the total value added in manufacturing. As Table 9 shows, there were notable differences between the range of firm sizes in Guelph and

²⁵ For an analysis of the distinctive industrial functions of Ontario towns in 1871, see The Ontario Urban System at the Onset of the Industrial Era, #3 in this series of research reports.

the rest of Wellington County, illustrating the larger pattern of urban-rural differences. The average number of employees in a Guelph firm was ten, compared with only three in the rest of Wellington County. Significant shares of employment and production value were contributed by firms with 26 to 50 workers in Guelph, a size-class largely missing in the rest of the county.

Table 9
9a. Ontario industrial establishments, 1871
By firm size or numbers of employees per firm

Firm size # employees	Establishments % total	Employment % total	Production % total	Value Added % total
1	39.8	9.0	6.1	6.2
2 - 5	45.8	28.5	29.9	25.7
6 - 25	12.9	30.1	33.2	32.7
26 - 50	1.2	10.0	10.8	11.9
51 - 100	0.5	7.6	6.7	8.1
101 +	0.3	14.8	13.1	15.4
TOTALS	100.0	100.0	100.0	100.0

9b. Guelph industrial establishments, 1871
By firm size or numbers of employees per firm

Firm size # employees	Establishments % total	Employment % total	Production % total	Value Added % total
1	10.8	1.0	1.4	-
2 - 5	46.8	13.8	13.8	12.1
6 - 25	30.6	31.3	39.0	37.5
26 - 50	9.9	31.9	30.1	26.3
51 - 100	0.9	6.1	4.6	5.6
101 +	0.9	15.7	11.1	18.5
TOTALS	100.0	100.0	100.0	100.0

9c. Rural Wellington industrial establishments, 1871
By firm size or numbers of employees per firm

Firm size # employees	Establishments % total	Employment % total	Production % total	Value Added % total
1	38.1	12.5	7.6	10.7
2 - 5	50.9	48.5	39.3	43.5
6 - 25	10.5	31.2	49.0	36.5
26 - 50	0.3	3.7	1.4	3.5
51 - 100	0.1	4.0	2.7	5.9
101 +	-	-	-	-
TOTALS	100.0	100.0	100.0	100.0

Table 10
10a: Ontario industrial establishments, 1871
By output size classes

	Establishments % total	Employment % total	Production % total	Value Added % total
Size class by value of output				
\$ 1 - 500	26.3	9.5	1.6	1.4
\$ 501 - 2500	44.2	20.9	9.1	12.4
\$ 2501 - 5000	11.3	10.6	6.9	8.7
\$ 5001 - 10000	7.8	11.2	9.5	10.6
\$ 10001 - 25000	6.1	14.5	16.4	15.9
\$ 25001 - 50000	2.4	9.7	14.5	12.6
\$ 50001 & over	1.9	23.4	42.3	10.8
TOTALS	100.0	100.0	100.0	100.0

10b: Guelph industrial establishments, 1871
By output size classes

	Establishments % total	Employment % total	Production % total	Value Added % total
Size class by value of output				
\$ 1 - 500	7.2	1.0	0.1	0.2
\$ 501 - 2500	29.7	7.1	2.7	3.3
\$ 2501 - 5000	17.1	8.8	4.0	5.5
\$ 5001 - 10000	11.7	7.7	5.5	6.2
\$ 10001 - 25000	19.8	25.2	18.3	21.4
\$ 25001 - 50000	8.1	21.9	16.4	26.8
\$ 50001 & over	6.3	28.2	14.6	36.5
TOTALS	100.0	100.0	100.0	100.0

10c: Rural Wellington establishments, 1871
By output size classes

	Establishments % total	Employment % total	Production % total	Value Added % total
Size class by value of output				
\$ 1 - 500	27.4	13.1	1.7	2.9
\$ 501 - 2500	44.1	31.1	12.2	20.6
\$ 2501 - 5000	15.0	19.2	12.4	20.0
\$ 5001 - 10000	6.7	15.0	10.8	16.4
\$ 10001 - 25000	3.8	9.7	15.0	16.6
\$ 25001 - 50000	1.6	4.6	14.4	9.2
\$ 50001 & over	1.3	7.3	33.4	14.0
TOTALS	100.0	100.0	100.0	100.0

As Table 10, shows, the great majority of firms were small in terms of output as well. The mean value of production per establishment in Wellington County was \$6,288 (compared with \$5,516 in Ontario). But more than four in every five businesses had lower values. Nearly one in four of all firms had an output of under \$500. Conversely, only fifteen firms (or 1.3 per cent of all in Wellington County) produced more than \$50,000 worth of products. But these few firms accounted for nearly one quarter of total employment and 40 per cent

of the value of industrial production. Again, the differences in scale between urban Guelph and the rest of Wellington County may be noted.

Power Technology

Less than one in four of the industrial firms in Wellington County (and of Ontario as a whole) in April 1871 reported using water or steam power. However, such firms were disproportionately significant in terms of employment, investment and production. Water- and steam-powered enterprises employed nearly half of all industrial workers, reported nearly three-quarters of fixed capital invested in industry and accounted nearly 60 per cent of the value added in the processes of industrial production (Table 11).²⁶

Table 11
11a: Types of power in Ontario industry, 1871 (percentages)

	Estabs	HP Force	Employ	Fixed Capital	Added Value
Type of Power					
Waterwheels	11.9	58.2	16.3	26.0	18.2
Steam engines	9.8	36.4	32.0	48.9	41.5
Water/steam	0.6	4.0	1.8	2.7	1.8
Horses	3.3	1.4	2.8	1.5	2.0
Hand	74.4	-	47.1	20.9	36.4
Total	100.0	100.0	100.0	100.0	100.0

11b: Power used in Wellington County industry, 1871 (percentages)

	Estabs	HP Force	Employ	Fixed Capital	Added Value
Type of Power					
Waterwheels	9.9	53.9	14.6	36.3	17.6
Steam engines	13.1	42.0	32.3	37.0	40.9
Water/steam	0.7	3.1	0.8	2.1	0.6
Horses	2.6	0.9	1.7	0.7	1.0
Hand	73.7	-	50.5	23.7	39.8
Total	100.0	100.0	100.0	100.0	100.0

Establishments with the largest nominal capacity were mainly powered by waterwheels.²⁷ Potential water-power sites were noted by surveyors and

²⁶ See Water Wheels and Steam Engines: Powered Establishments of Ontario, #2 in this series of research reports.

²⁷ The term waterwheel is used generally here (as it was in the early 1870s) to include not only the traditional overshot and undershot wheels but also the more modern breast wheels and turbines. Census data do not distinguish between the various types of waterwheel. See Arnold Pacey, The Maze of Ingenuity: Ideas and Idealism in the Development of Technology (London: Allen Lane, 1974), 209-211; Terry S. Reynolds, Stronger than a Hundred Men: A History of the Vertical Water Wheel (Baltimore: Johns Hopkins, 1983); Terry S. Reynolds, "The Emergence of the Breast Wheel and

sometimes reserved for town locations since the land and water rights commanded a premium price. The early water-power sites of Guelph were noted by the town's founder, John Galt, who described the great advantages of 17 mill-sites on either side of the Speed River, in a letter dated 30 April 1827.²⁸ By 1871, waterwheels in Guelph had harnessed 273 horse power of energy. Outside Guelph, the main water-power sites were along the Grand and its tributaries the Speed and the Eramosa. The Wellington Centre district, traversed by the Grand River, had nearly two-thirds of all the water power capacity reported in 1871 for the county. Over half of all the developed water power of Wellington County was reported in the villages of Fergus and Elora and in Eramosa and Nichol Townships with important concentrations at such points as Salem, Rockwood, and Eden Mills.

Five water-powered establishments in 1871 were reported as having a force of at least 70 horse power, all of them flour mills. Two of these were located on the Speed River as it flowed through Guelph -- James Goldie's People's Mill with 160 horse power and David Allan's flour mill with 70 horse power.²⁹ Two were flour mills on the Grand River in Fergus, William Robertson's with 140 hp and James Wilson's with 100 hp, while J. Fraser's Elora flour mill and distillery was the other with 70 horse power.

In several towns and villages, the miller was clearly the leading entrepreneur in the community and often had more than one industrial business. In Fergus, for example, James Wilson was proprietor not only of the large flour and oatmeal mill, but also of a woolen cloth factory, a steam-powered saw mill and a lime kiln. A further 24 flour or grist mills, 31 saw mills and nine textile mills depended on waterwheels of between 15 and 50 hp.³⁰ Many of these are shown located along the various tributaries of the Upper Grand River in Figure 7. The water/steam type refers to older water-powered establishments that had added a steam engine to supplement the usual power source in periods of low water flow. The significance of this type of mixed power source was quite evident in Guelph where the Speed River flow was declining.

Steam engines were widely diffused throughout Ontario by 1871 as major prime movers or as supplementary power to the hand trades. There were more mills and factories powered by steam than by water in Wellington County

its Adoption in the United States," in Robert Weible ed., The World of the Industrial Revolution, 55-58.

²⁸ Canada Company, Commissioners' Letters and Reports, 1826-1828. Archives of Ontario, Canada Company Records, Series A-6-2.

²⁹ An account of Guelph mills by a member of a prominent milling family is contained in David Allan, "The Milling Industry: Guelph and Vicinity", Wellington County Historical Society 1 (1932): 1-8.

³⁰ For an account of a smaller rural mill, see Marion R. Reynolds, "History of Walkey's Feedmill, Harriston, 1856-1944," Western Ontario Historical Notes 22, 1 (1966): 53-56.

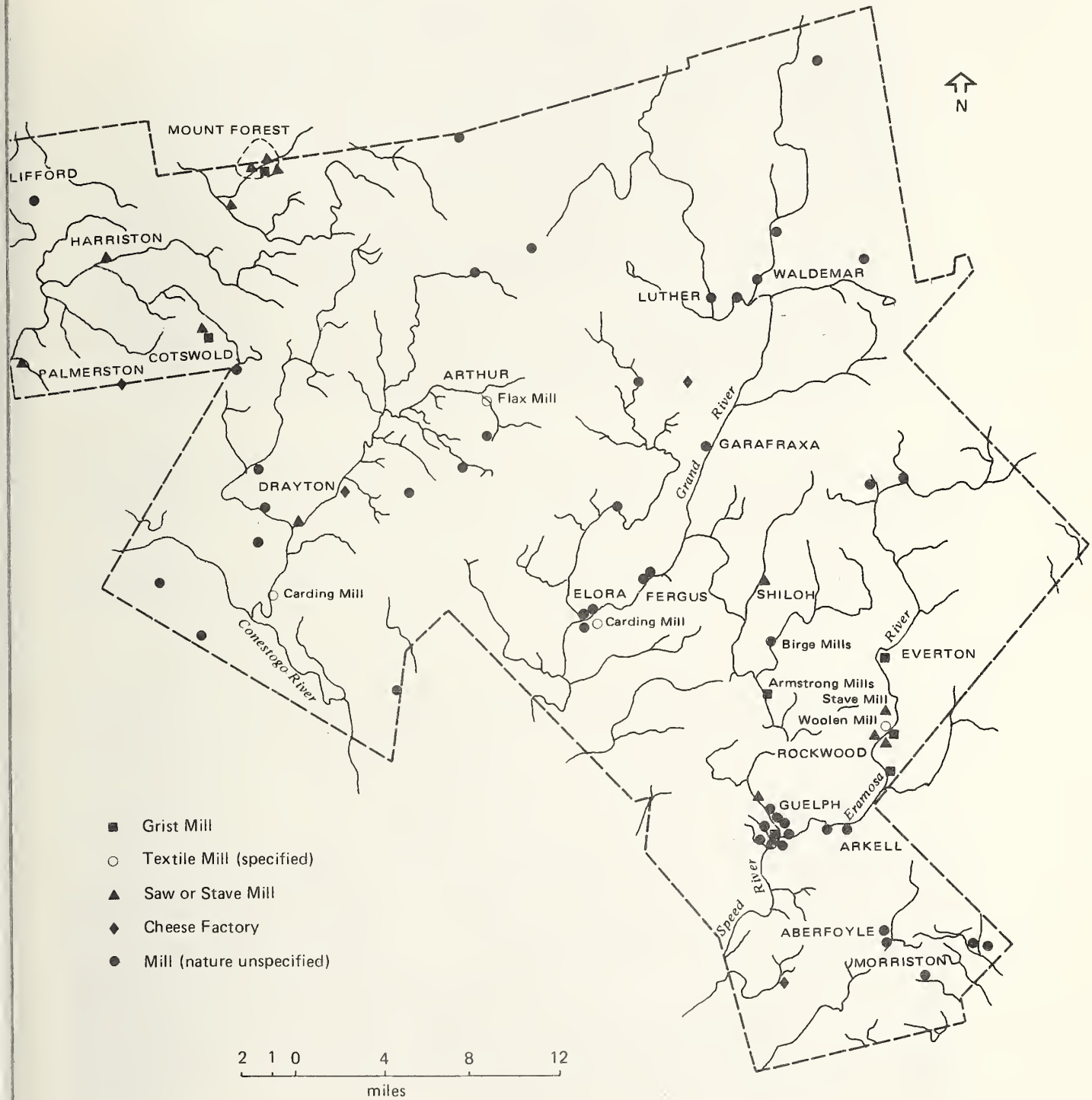


Figure 7: Wellington County: distribution of mills, 1877
 Compiled from *Historical Atlas of Wellington County 1877*



Plate 3: Guelph Mills, the property of D. Allan Esq., 1873. Lithograph by Eugene Haberer from the Canadian Illustrated News (courtesy Macdonald Stewart Art Centre). William Allan (a cousin of Hugh Allan the Montreal shipping magnate) bought the mill from the Canada Company in 1833. The mill was rebuilt in stone in the early 1850s.

Plate 4: Speedvale Mill, c1870 (courtesy Guelph Civic Museum). John Pipe's water-powered grist mill was in Guelph Township, close to the northwestern edge of the town of Guelph.



and they accounted for more than twice the added value of the establishments that used waterwheels. Steam-powered businesses generally had smaller capacities, measured in horse power units, than businesses dependent on water power. Steam engines were also used by businesses in a wider range of industry types than were waterwheels. Steam power outweighed water power in urban industrial production, the value added in steam-powered factories being several times that of water-powered industries in Guelph for example. But steam power was most relatively significant in the townships and villages of Wellington North that had few natural water-powered sites.

Four local enterprises reported steam engines of 40 horse power each -- David Allan's Guelph distillery, Thomas Jull's flour mill in Orangeville, William Gubb's grist mill and saw mill in Maryborough Township and George Preston's saw mill at Harriston in Minto Township. But engines smaller than 25 hp were widely used in both urban and rural areas throughout the whole range of industry types from primary processing (sawmills) to planing and the fabricating of finished goods such as agricultural implements. Nine in ten of Wellington County's steam-powered firms had engines with 25 hp or less. Quite small steam engines could power significant enterprises. George Sleeman's Silver Creek Brewery was powered by an 8 hp engine and the three Guelph sewing machine factories each had engines of 6 to 15 hp. Inglis & Hunter machinery shop and the Armstrong McCrae woolen factory each reported 12-hp engines. The sash and door factories of Robert Stewart and Stephen Boulton each had a 20 hp steam engine. There were two manufacturers of steam engines in Wellington County itself, Inglis & Hunter and Adam Robertson of Guelph, but the much larger firms of Goldie and McCulloch in Galt and Waterous in Brantford as well as a dozen others in Ontario made a great variety of engines and machines for industrial use.³¹

Live horses were used as motive power most typically in the processing of non-metallic minerals (brick and pottery making) and leather (tanneries). But a large proportion of industrial activity in several sectors still depended on manual power alone, and was not assisted by waterwheels, steam engines or horses. In Ontario as a whole, over half the establishments making boots and shoes, tobacco products, textiles, knitted goods and clothing, furniture, metal fabricated goods, printing and publishing, transportation (mainly carriages and wagons), miscellaneous manufactures, and primary processing, construction, utilities, trade and services depended on hand power. In Wellington County, all the saddlers, boot and shoe makers, tailors and dressmakers, tinsmiths and blacksmiths reported hand power alone.³² Almost all non-powered units had

³¹ See Water Wheels and Steam Engines, #2 in this series, pp. 25-28; Industrial Leaders, #8 in the series, pp. 15-28.

³² For a detailed and valuable study of the material culture of blacksmithing in Upper Canada, see William W.T. Wylie, "The Blacksmith in Upper Canada, 1784-1850: a study of technology, culture and power," in Canadian Papers in Rural History, Volume VII, edited by Donald H. Akenson (Gananoque: Langdale Press, 1990), pp. 17-213. By 1871, economic and technological changes had affected the blacksmith's craft, but the traditional methods and culture survived in areas such as rural Wellington County.

small numbers of employees; only the six largest, all of them in Guelph, had between 27 and 33 workers each.

A closer look at several of the sectors in Appendix A-2 provides evidence of a dual technology or a dichotomy between a small group of mechanized enterprises using inanimate power and operating on a relatively large scale and the great mass of artisanal enterprises working on small scales and using hand power alone. Among the cooperage shops, planing mills, and furniture makers, this tendency may be noted. The two largest planing mills and sash/door factories in the county, those of Robert Stewart and Stephen Boulton, each used a 20-hp steam engine and operated on a significantly larger scale than the other firms in that line of business. Robert Stewart, for example, employed 20 men and boys and produced goods to the value of \$35,000, about the same as all the other planing mills in the county put together (see Plate 5).³³

The textile industry is a classic example of dual technology. Wellington County lacked very large mills on the scale of those in Almonte, Merrittton or nearby Hespeler.³⁴ But there were ten mills using steam or water power to produce woolen or cotton cloth. These ranged in size from the Armstrong, McCrae Company's woolen and knitting mill in Guelph that had 39 employees and a 12-hp steam engine through the middle-sized woolen mills of John Baine in Elora, Harris & Company in Rockwood, James Wilson in Fergus, Henry Bird and Joseph Billings in Peel Township, William Lambert in Harriston, George Murray in Guelph, and the cloth factory with the unnamed proprietor near Arkell in Puslinch Township to Armitage & Watt's small cotton factory in West Garafraxa. In addition, the enumerators found 64 handloom weaving establishments in which cloth was woven in small workshops or the weavers' homes without using any inanimate power.³⁵ The hand weavers depended on

³³ It is interesting that Stephen Boulton is recorded as operating a sash and door factory and not also as a builder. Boulton also practised as an architect who designed and built the Congregationalists' church in Guelph in 1867 as well as other structures; he also won the contract to erect St George's Church in Guelph (1869-1872). See Gilbert A. Stelter, "Henry Langley and the Making of Gothic Guelph," Historic Guelph 28 (1988-89): 16-19.

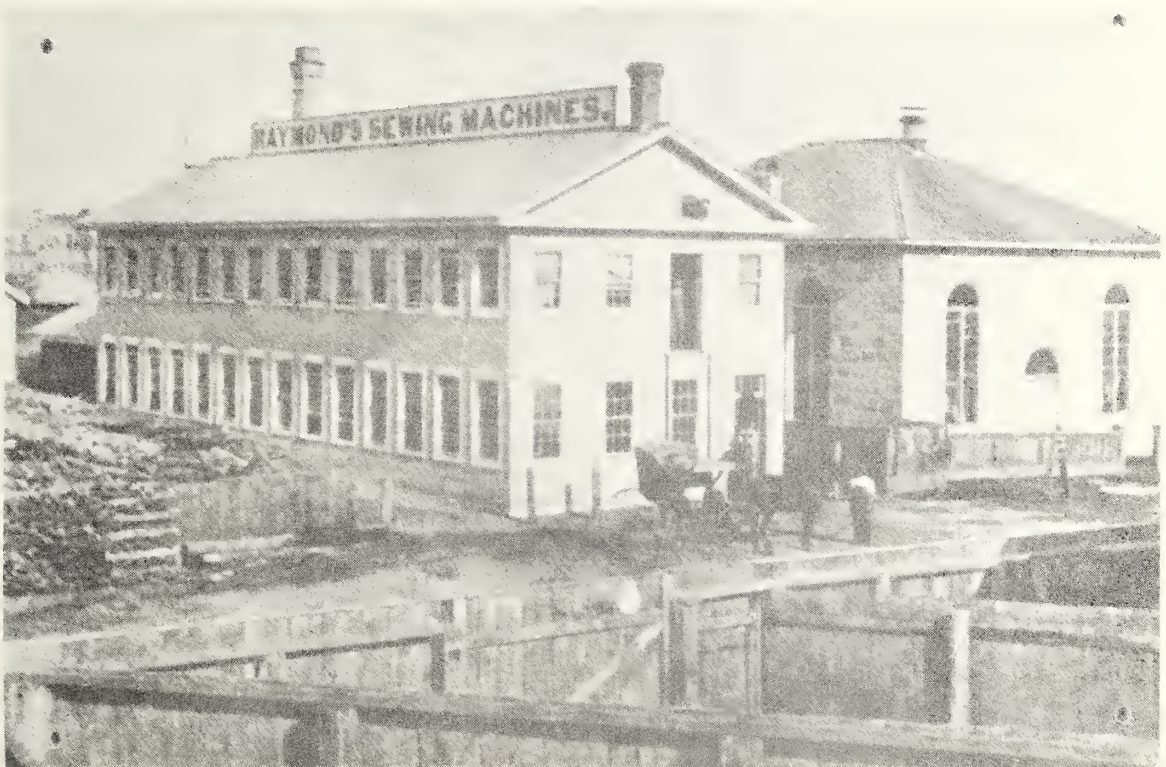
³⁴ For valuable documentation of Canada's larger textile mills, see Felicity Leung, "Catalogue of Significant Extant Textile Mills Built in Canada Before 1940" (prepared for the Historic Sites and Monuments Board by the Historical Research staff of the Canadian Parks Service, 1986).

³⁵ For a discussion of the evidence of domestic weaving in the 1871 census, see Janine Grant and Kris Inwood, "Gender and Organization in the Canadian Cloth Industry, 1870" in Canadian Papers in Business History, Volume 1, edited by Peter Baskerville (Victoria, BC: Public History Group, University of Victoria, 1989) pp. 17-32; Janine Roelens and Kris Inwood, "Labouring at the Loom: A Case Study of Rural Manufacturing in Leeds County, Ontario, 1870," in Canadian Papers in Rural History, Volume VII, edited by Donald H. Akenson (Gananoque: Langdale Press, 1990) pp. 215-236. Wellington County does not easily fit some of the generalizations about gender in these essays, however, as only 33 of the 85 workers reported to be handloom weavers in this county



Plate 5: Robert Stewart's planing mill on Wyndham Street, Guelph c1869 (courtesy Robert Stewart). Stewart, who first started his business in Guelph in 1853/4, employed 20 in 1871 in the making of sashes, doors and building materials. 37

Plate 6: Charles Raymond's sewing machine factory, c1870 (courtesy Guelph Civic Museum). Raymond, who began his Guelph business in about 1861, had one of the three factories in Wellington County in 1871, employing 70 and producing \$85,000 worth of output. Raymond's business expanded considerably after 1870 to become the largest in Guelph.



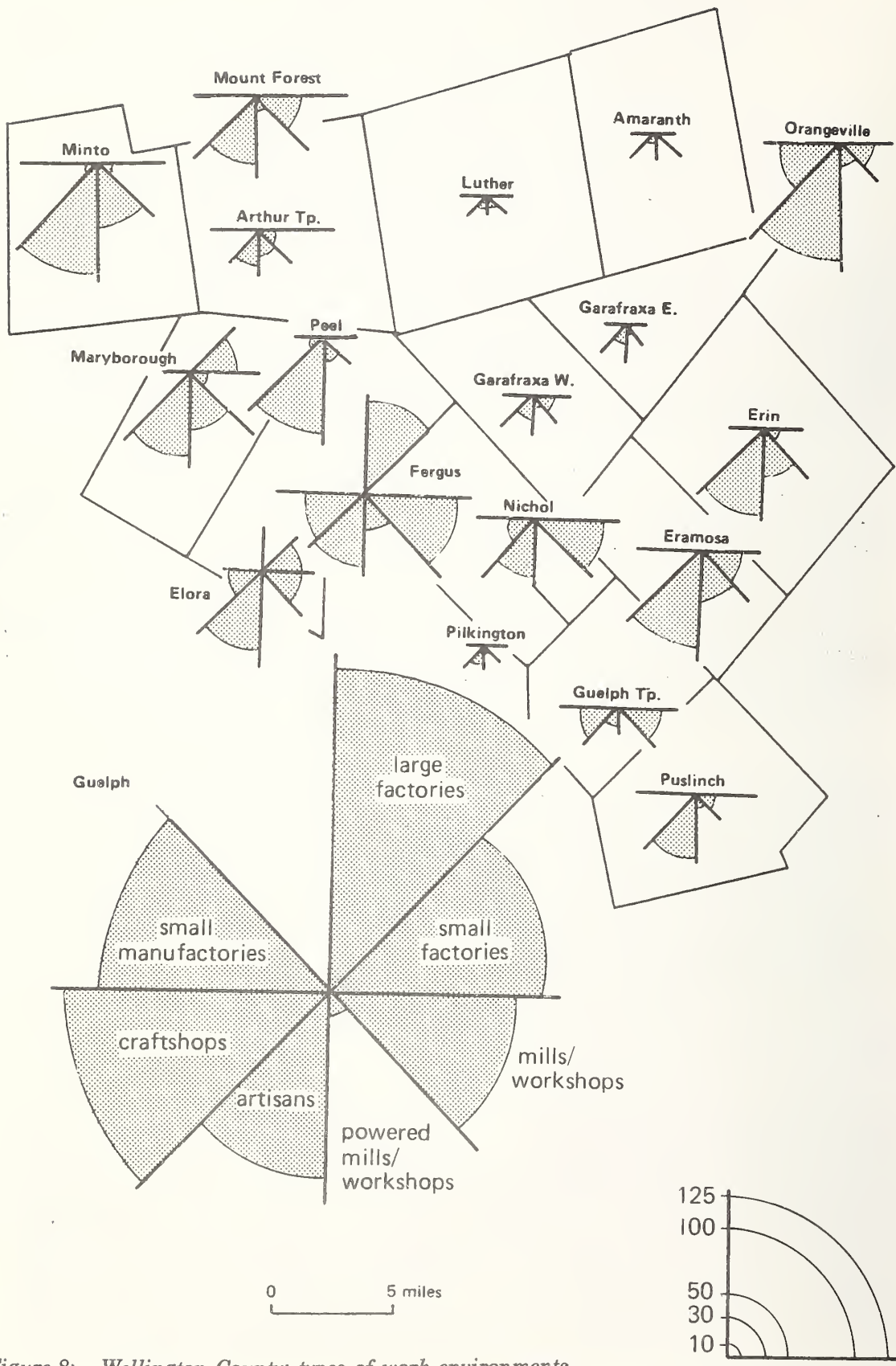


Figure 8: Wellington County: types of work environments

Scale for numbers in each work environment

seven carding and fulling mills all using inanimate power -- those of David Yeomans and George James in Mount Forest, John McEachern and William Lambert in Minto Township, Thomas Holmes in Maryborough Township, and John Stephenson in Orangeville. The two flax mills - of Charles Hendry in Maryborough Township and John Hayneberry in Nichol Township - also used water power.

4 PROCESSES OF INDUSTRIAL ORGANIZATION

The 1871 database allows us to examine the organization of industrial activity at a time of transition from artisanal craftshops to factories using machinery and integrated work processes. A useful concept in understanding this transition is the **work environment**, which combines measures of the size of the workplace with the extent to which non-manual power was used in the industrial process. A typology of work environments, based on the Philadelphia research of Laurie and Schmitz, distinguishes eight types (Figures 8 and 9).³⁶

Basic distinctions are drawn between workplaces with no inanimate power (represented on the left side of diagram) and workplaces powered by water or steam (right side). Work environments are further categorized as to the size of their workforces, producing four size classes: 1-5 workers, 6-25 workers, 26-50 workers, and 51 or more workers. Powered establishments with at least 26 workers are called **factories**, while **manufactories** are non-powered workplaces with at least 26 workers. Smaller powered establishments are called **mills** if they had from 6 to 25 workers, **powered craftshops** if they had 5 or fewer workers.

Workplaces using only hand or horse power are called **artisans' craftshops** if they employed 5 or fewer. Slightly larger craftshops, without power and

were females. It may be noted that Wellington County's hand weavers were somewhat concentrated in the two townships of Erin and Minto in localities of Scots ethnic origin.

³⁶ B. Laurie and M. Schmitz, "Manufacture and Productivity: The Making of an Industrial Base, Philadelphia, 1850-1880," in T. Hershberg, ed. Philadelphia: Work, Space, Family and Group Experience in the Nineteenth Century (New York, 1981): 43-92. McKay has applied a similar typology to the Halifax baking industry at this time but defining in terms of size of workforce and size of output, rather than use of power: I. McKay, "Capital and Labour in the Halifax Baking and Confectionery Industry During the Last Half of the Nineteenth Century," Labour/Le Travailleur 3 (1978): 63-70. In McKay's classification, handicraft bakeries had fewer than five workers; manufactories employed five or more workers, utilized "mechanical improvements to a greater extent", and had "access to steam power" but were chiefly distinguished by a total output of at least \$25,000 in 1870. In the context of the baking and confectionery industry, a factory produced at least \$100,000 worth of output (McKay, "Capital and Labour", 65-70). For an application of the typology of work environments to Canada in 1871, see Bloomfield and Bloomfield, The Ontario Urban System at the Onset of the Industrial Era, #3 in this series of research reports.

employing between 6 and 25 workers, were called **sweatshops** by Laurie and Schmitz in the Philadelphia context though they acknowledged that the term presented some definitional problems. **Outworkers**, who toiled at home under the putting-out system, would be included with the artisans' craftshops, from which it is hard to distinguish them on census manuscript evidence alone. We should remember, however, that the terms used to describe the eight types do not really match contemporary usage when factories, manufactories and shops were generic terms used interchangeably for all sizes of establishment. Our transcription of the natural language used by the census enumerators allows readers to note this terminology in the (TYPEEST) Type of Establishment data in the Appendix tables of this report.

		USE OF POWER			
		non-powered (hand/horse only)		powered by water or steam	
SIZE OF WORKFORCE	51+	MANUFACTORIES (larger)		FACTORIES (larger)	51+
	26-50	MANUFACTORIES (smaller)		FACTORIES (smaller)	26-50
	6-25	SWEATSHOPS and larger CRAFTSHOPS		MILLS	6-25
	1-5	ARTISANS' CRAFTSHOPS		POWERED WORKSHOPS, smaller MILLS	1-5
		non-powered (hand/horse only)		powered by water or steam	

Figure 9: Typology of work environments, 1871

Table 12

**WELLINGTON COUNTY, 1871:
DISTRIBUTION OF INDUSTRIAL WORKERS BY WORK ENVIRONMENT
(percentages)**

SECTOR	FIRM SIZE	NON-POWERED BY WATER/STEAM			SUBTOTAL	POWERED BY WATER/STEAM			SUBTOTAL
		1-5	6-25	26-50		1-5	6-25	26-50	
5.01	Foods/beverages	14.8	11.7		26.5	25.6	36.4	11.4	73.4
5.02	Tobacco	100.0			100.0				
5.04	Leather	60.0	15.2	9.3	84.5	8.7	6.8		15.5
5.05	Textiles	33.1			33.1	6.8	30.4	29.7	66.9
5.06	Knit/hosiery		100.0		100.0				
5.07	Clothing	40.1	27.3	32.5	100.0				
5.08	Wood	13.0	10.9		23.9	44.3	31.8		76.1
5.09	Furniture	50.0			50.0	13.6	36.4		50.0
5.11	Printing	56.9	43.1		100.0				
5.12	Primary metal	2.2	17.4		2.2	20.0	15.5	62.2	97.8
5.13	Metal fabricatg	56.5			73.9		26.1		26.1
5.14	Machinery	4.4	1.0		5.4	1.6	17.3	18.9	94.6
5.15	Transport.equipmt	43.7	45.2		88.9		11.1	56.8	11.1
5.17	Non-metal.mins	77.6	22.4		100.0				
5.18	Fuels						100.0		100.0
5.19	Chemicals	95.6			95.6		4.4		4.4
5.20	Miscell.mfg	13.2		86.8	100.0				
6.00	Construction	36.4	47.3		83.7		16.4		16.3
7.00	Utilities	100.0			100.0				
8.00	Trade/repair	100.0			100.				
10.00	Services	94.4	5.6		100.0				
ALL INDUSTRIES		32.5	13.6	6.0	52.1	10.9	17.7	8.4	47.9

Source: Compiled from CANIND71 database.

How significant were the various work environments in Wellington County in 1871? Table 12 sets out the distribution of the industrial workers of Wellington County in each industrial sector through the various types of work environment. In Table 13 the proportions of workers in the eight basic types of work environment are summarized for Wellington County and Guelph in relation to all of urban Ontario and all of rural Ontario. Overall, Wellington County businesses were a little smaller and relied less on inanimate power such as water or steam than businesses generally in Ontario. Wellington had no manufactories with 51 or more workers and a smaller share of workers in factories of at least 51 workers; larger craftshops and sweatshops were also under-represented. While across Ontario just over half of all industrial workers were in powered workplaces, 52 per cent of Wellington's workers were in non-powered workplaces. Only in the processing of food and the manufacture of machinery did Wellington County have well above-average shares of workers in larger and powered workplaces, reflecting the local strength of these sectors.

Table 13

DISTRIBUTION OF WORKERS IN WORK ENVIRONMENTS, 1871

Work Environment	Rural Ontario	Urban Ontario	Wellington	Guelph
Non-Powered	%	%	%	%
Artisans (1-5 emp)	45.4	17.8	32.5	12.8
Sweatshops (6-25 emp)	5.8	20.2	13.6	18.2
Manufactories (26-50 emp)	0.3	4.8	6.0	16.0
Manufactories (>51 emp)	0.5	5.5	-	-
Sub-Total	52.0	48.3	52.1	47.0
Powered				
Small (1-5 emp)	15.8	3.2	10.9	1.5
Medium (6-25 emp)	19.6	13.0	17.7	13.3
Factories (26-50 emp)	5.4	8.3	8.4	16.1
Factories (>51 emp)	7.2	27.2	10.8	22.0
Sub-Total	48.0	51.7	47.9	53.0
TOTAL	100.0	100.0	100.0	100.0

In Figure 8, the structure of workplace environments in each municipal unit is represented as a graph according to the following rationale based on the typology explained in Figure 9. Small workplaces in the lower half of the graph are distinguished from the larger workplaces above, in four size classes, 1-5 workers, 6-25, 26-50, and 51 and over. Powered workplaces on the right of each graph are distinguished from those using no inanimate power on the left. Numbers of employees are considered according to the size of their workplaces and whether inanimate power was used. Eight types of work environments are thus distinguished.

Within this primary structure, sectors are subdivided and shaded according to whether each place had work environments of that type. Numbers of workers in each type of workplace are represented according to the scale on the

radius of the arc. The diagram thus conveys a measure of the magnitude of industrial activity in each place as well as the typology of work environments.

In most localities, most workers were in non-powered artisanal shops with five or fewer workers each. The meagre amount of industrial activity in townships such as Amaranth, East Garafraxa and Pilkington was entirely concentrated in this type of workplace. Water-powered grain or saw mills provided quite small numbers with employment. The largest powered mills and workshops in most rural areas employed five or fewer workers, with Nichol and Eramosa Townships being exceptions. The small urban centres of Orangeville and Mount Forest, as well as Fergus and Elora, also had some larger powered workplaces.

Guelph clearly had almost all the factories, the only others being one each in Fergus, Elora and Maryborough Township. Guelph's two large factories both made sewing machines -- the Guelph Sewing Machine Company with 180 workers and Charles Raymond's factory with 70. The only other large factory in the county in 1871 was the Lockman & Wilson sewing machine plant in Fergus that employed 75 workers. Thus the local specialization in the manufacture of sewing machines provided Wellington County's only example of work experience in large factories. Canada's sewing machine industry, which was expanding very rapidly at this time, was notably concentrated in the Hamilton and Guelph areas in 1871. Of the seven sewing machine factories with an output worth \$75,000 or more in 1871, three were in Hamilton, two in Guelph and one in Fergus, the other being in Montreal. The Guelph Sewing Machine Company was the second largest in this line of business in 1871 and the Fergus factory was a branch plant for the Wilson, Bowman firm in Hamilton which ranked third in Canada. Though Charles Raymond's business ranks lower in the 1871 census data, it became more significant from the later 1870s. Edwin Armes also operated a smaller sewing machine factory with 30 workers. All these factories used steam power and much the same technology and depended on other firms in the foundry business for their castings and other parts.³⁷

There were five smaller factories in Guelph, all using steam or water power and employing between 26 and 50 workers. These were the Inglis & Hunter engine and machinery works with 48 workers, Armstrong & McCrae's woolen and knitwear factory (39), James Goldie's flour mill and cooperage (38), Edwin Armes's sewing machine factory (30) and John Crowe's iron foundry (28). The only other powered workplaces in the county with between 26 and 50 workers were Potter's agricultural machinery works in Elora (30) and Charles Hendry's flax mill in Maryborough Township (40).

³⁷ For more context on this line of industry, see Martha E. Brent, "A Stitch in Time: The Sewing Machine Industry of Ontario, 1860-1897," *Material History Bulletin* 10 (1980): 1-30. See also John S. Warecki, "Charles Raymond and the Raymond Sewing Machine/Manufacturing Company: the character of boosterism in nineteenth-century Guelph," (University of Guelph: M.A. thesis in History, 1988).

Manufactories were a type of workplace usually found only in larger urban centres. Wellington County's six manufactories employed between 27 and 33 workers each, with no inanimate power, and were all in Guelph. Three were clothing shops operated by dry goods merchants that employed significant numbers of women as seamstresses in lofts above the stores. Shaw & Murton employed 28 women, the Heffernan Brothers 26 and Chance & Williams 20. John Hepburn & Company employed 23 men and a few women in making boots and shoes by hand labour alone. The making of organs and melodeons was another distinctive industry in Guelph. Two manufactories, those of William Bell and McLeod, Wood & Company, employed 32 and 27 workers, mainly men. As William Bell's sample record shows (Figure 6), the business was in transition to factory status, as it was intended to introduce a steam engine of 18 hp during 1871.³⁸

Guelph stands out in the Wellington County context for its larger workplaces, with 38 per cent of the town's workers in factories and 16 per cent in manufactories. But Guelph should also be seen in the perspective of larger urban centres. In Toronto, factories employed practically 50 per cent of all the industrial workers and manufactories a further 22 per cent. Hamilton had an even larger share (over 53 per cent) of its industrial workers in factories, and a further 14 per cent in manufactories. Artisanal shops were much more weakly represented in the cities of Toronto and Hamilton than in other urban centres of Ontario and especially in rural Ontario.

5 INDUSTRY IN COUNTRYSIDE AND TOWN

The section of countryside in Figures 10 and 11 consists of parts of Guelph and Eramosa Townships to the north and east of the Town of Guelph. About 220 square kilometres in extent, it had a population of about 4,000, compared with nearly 7,000 within the Town of Guelph itself. Settled for up to 45 years following the foundation of Guelph in 1827, the countryside had a fairly mature agricultural landscape and a rural economy based on the cultivation of wheat and oats and the raising of cattle and sheep. Rural populations in Wellington South reached their peak levels in the early 1870s, before steadily declining in the late nineteenth century and early twentieth century. Outside Guelph itself, none of the hamlets or villages of this area has ever been incorporated though Rockwood has long had a large enough population to apply for village status. Of the nucleated settlements shown here, Arkell, Eden Mills, Rockwood, Eramosa, Everton and Speedside all had post offices in 1871 as well as other central-place functions.

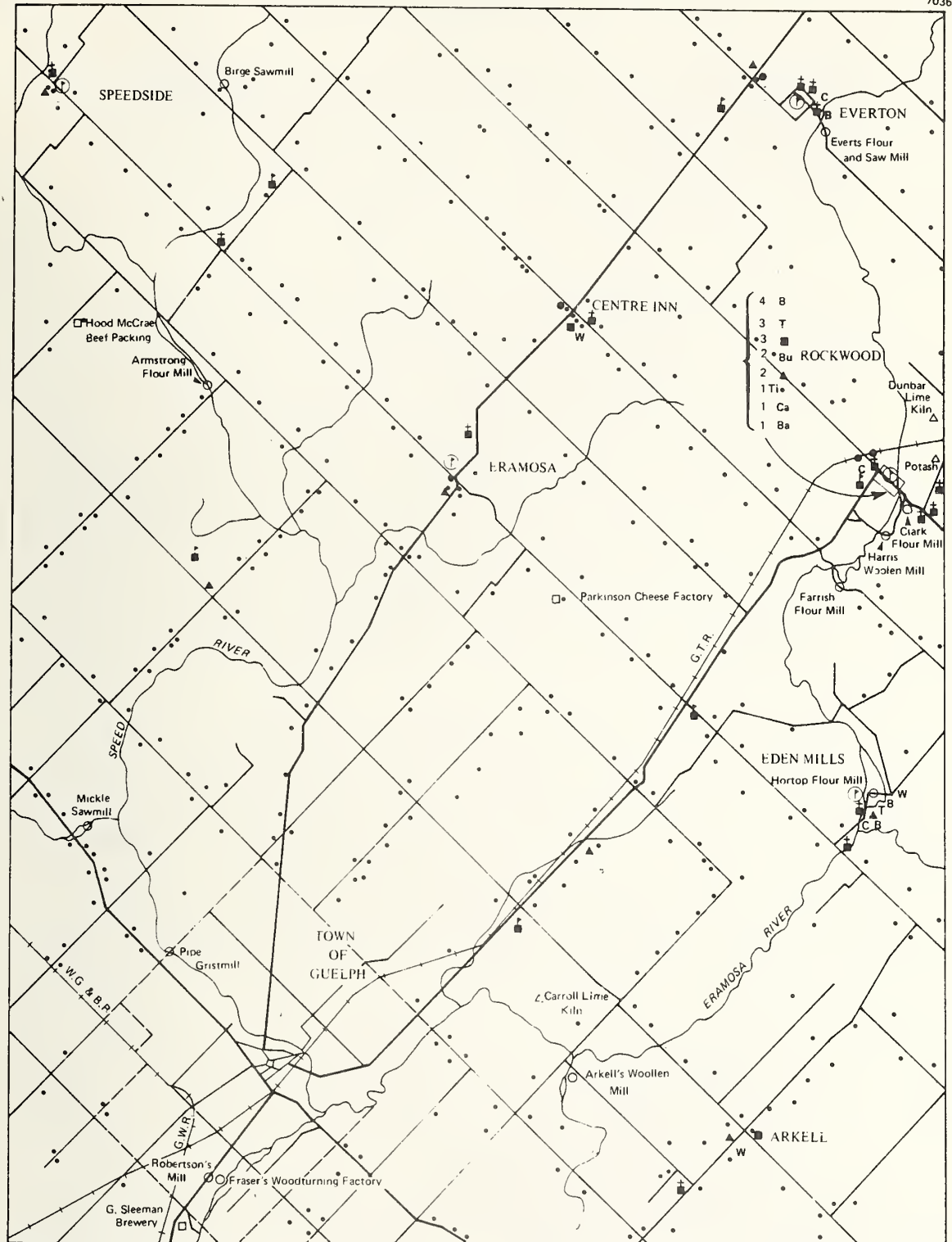
Only a tiny proportion of the population, 187 or under 5 per cent, of this sample rural area worked in the 55 industrial establishments. None of the rural enterprises could be classed as a factory, but eight of them had between six and seventeen workers. In order to discuss the location and interaction of these enterprises, one must consult other sources such as contemporary

³⁸ A brief account of the Bell firm is contained in Dorothy Duncan, "The Bell Organ Company," *Canadian Collector* 13, 2 (1978): 40-41. The business expanded considerably from the 1880s with the opening of a new factory in 1881.

GUELPH AREA, 1870: INDUSTRIES

5736

7036



5719 Base from NTS 40/P9, Guelph

7019

- | | | | |
|---------------|-------------------|--|-------------------------|
| Ⓟ POST OFFICE | ■ WAGONMAKER | Bu BUILDER | □ OTHER FOOD PROCESSING |
| Ⓜ SCHOOL | C COOPERAGE | Ca CABINET MAKER | △ NON-METALLIC MINERALS |
| Ⓢ CHURCH | B BOOTS AND SHOES | Ti TINSMITH | --- TOWN BOUNDARY |
| ● RURAL HOTEL | W WEAVER | Ba BAKER | + RAILWAYS |
| ▲ BLACKSMITH | T TAILOR | ○ MILL (grist, flour, saw, or woollen, | |

0 1 2
Kilometres

Figure 10: Industry in rural area, north and east of Guelph

GUELPH AREA, 1870: INDUSTRIES

5736

7036

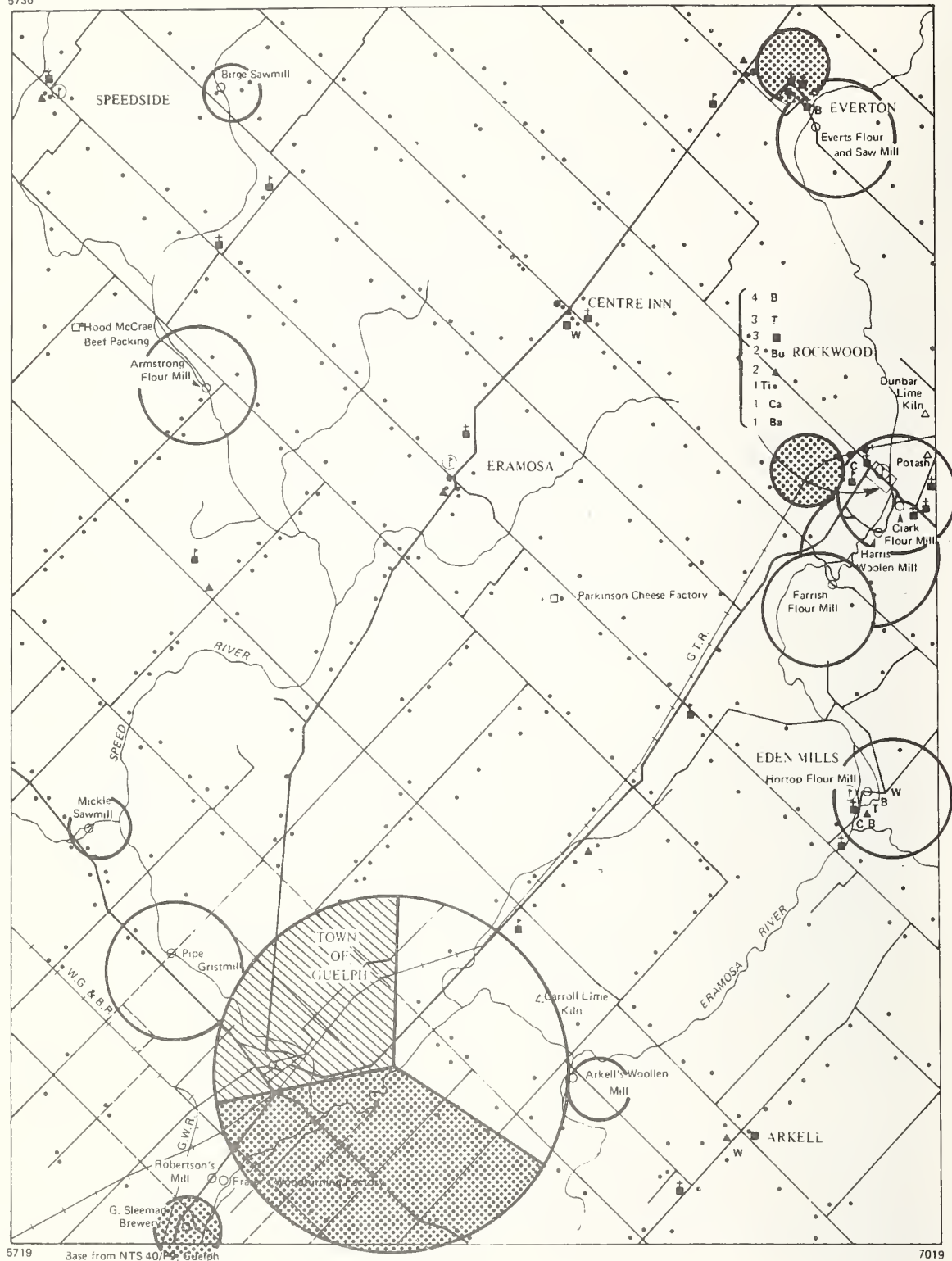


Figure 11: Industry in rural area, north and east of Guelph: use of water and steam power

directories and maps, as the census schedules themselves specify only the township in which each establishment was located.³⁹ The main enterprises and industrial sites were clearly related to local resources, notably water-power sites on the Speed and Eramosa Rivers and the farm economy. Water power, totalling 380 horsepower, was used by nine mills and factories in this sample area. Three other establishments reported much smaller capacities of steam power.

Water-powered grain mills contributed about two-thirds of the total value of industrial production reported for this area in the 1871 census. The largest mills were those of Pipe (the Speedvale Mill in Plate 4) and Armstrong in Guelph Township and, in Eramosa Township, those of Clark and Farrish at Rockwood, Hortop at Eden Mills, and Everts in Everton. We should note that the grain mills of James Goldie, David Allan and others along the Speed River within the Town of Guelph also handled local grain and had total capacity and output nearly twice those of the combined rural mills. Local grain was used also in the notable breweries and distilleries of Guelph. Agricultural produce was processed also in the Hood McCrae beef-packing establishment and in Parkinson's small cheese factory. Locally grown wool may have been used also in the Harris Company woolen mill at Rockwood and the smaller mill near Arkell. The three sawmills of Birge, Mickle and Everts operated on smaller scales than the flour mills or woolen mills,⁴⁰ reflecting the earlier clearance of the forest in this area, and the Barry Brothers' cooperage and stave works in Rockwood used steam power.

Most of the industrial establishments reported in this rural area were artisanal shops using neither steam nor water power and employing five persons at most. Some 22 businesses employed two to five workers each and 19 were the one-man shops of country blacksmiths, wagonmakers, bakers, bootmakers or cabinetmakers. Every small hamlet had at least one blacksmith, with eleven altogether in the rural area and six on Guelph. In addition to farriering or horse-shoeing, such craftsmen also repaired farm implements and household goods of metal. Blacksmiths outside the nucleated settlements were located on the most important roads linking Guelph with the north (the Eramosa Gravel Road to Erin and Orangeville) and the east (via Rockwood to Toronto).

The size and diversity of industrial activity in Rockwood is interesting. Not only were there significant water-powered mills but a considerable variety of smaller craftshops. Though within six miles of Guelph, Rockwood clearly performed important service functions for its immediate hinterland. The village had three blacksmiths, three boot and shoe makers, two carriage and wagon makers, two tailors, two builders, one saddler, one baker, one tailor/dressmaker, one tinsmith, one cooper, one hand weaver, as well as a lime kiln and a potashery. Eden Mills had only half as many functions and Everton one third

³⁹ For explanation and discussion of this point, see Boundaries of Canadian Census Units in 1871, #10 in this series.

⁴⁰ For an account of one of these mills, see Jonathan B. Nelson, "The birge Mill in Eramosa," Historic Guelph 22 (1982): 42-47.

as many as Rockwood. Rockwood's early rail connections from 1856 by the Grand Trunk line to Guelph in the west and Toronto in the east help to explain its faster growth and greater degree of industrialization, compared with the other hamlets and villages in this area.

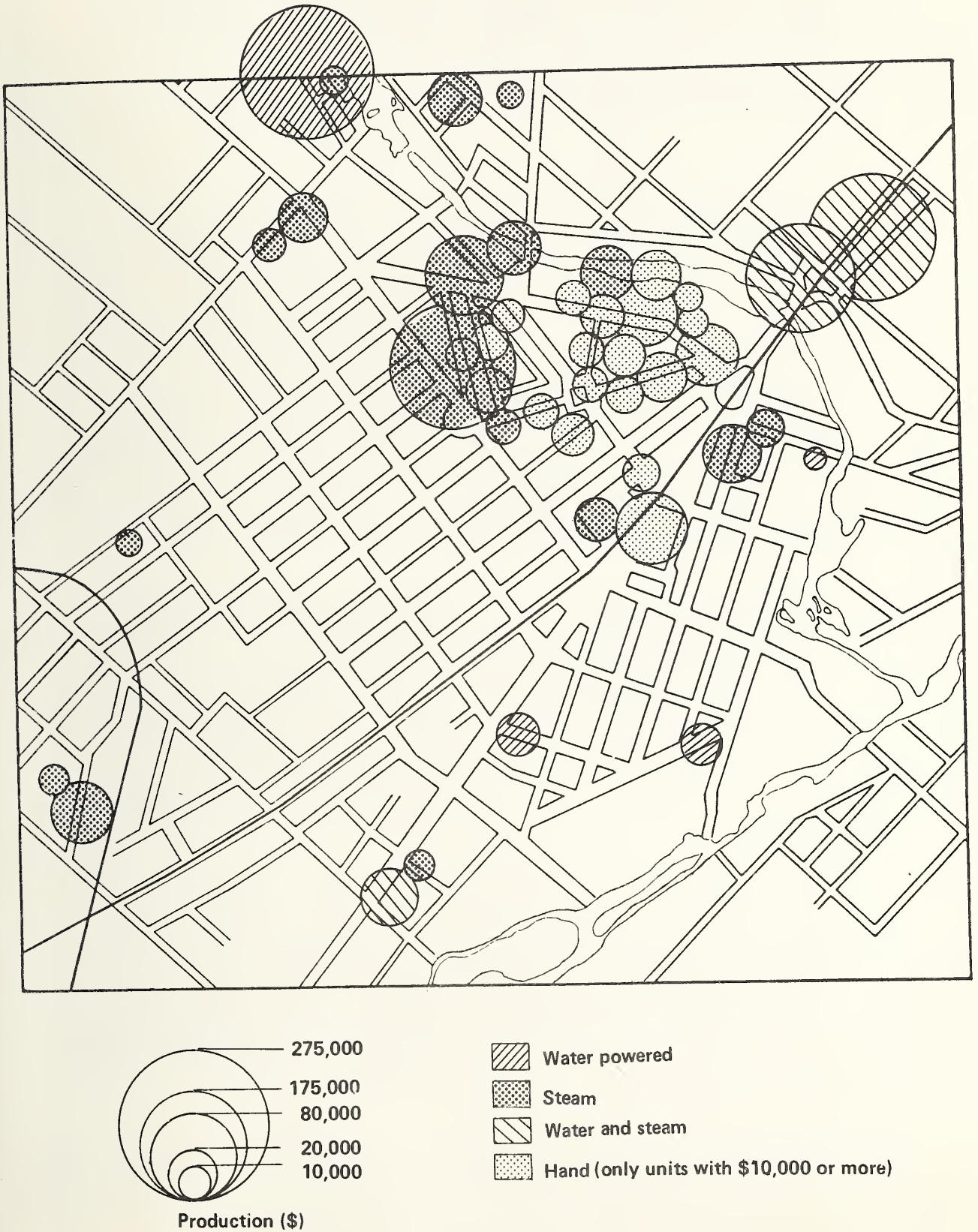
The Town of Guelph had become a significant urban centre by 1870, the largest in the Grand Valley region north of Brantford and served a large district of fairly recently developed farm land to its north and west. Guelph expanded commercially during the boom of the 1850s, growth that was expressed in the construction of solid limestone "business blocks" on its main streets. Guelph's railway connections from 1856 were undoubtedly important in the town's subsequent urban-industrial growth. The Guelph Board of Trade, formed in 1866, was an important agency promoting the town's industrial development from this time. It strongly supported the creation of the Guelph Gas Company in 1870, at first for gas lighting, though gas would be a source of power for small workshops a little later. The Board of Trade was also instrumental in raising stock subscriptions from local businessmen and community leaders to help launch new enterprises.⁴¹

Mills processing grain into flour and feedstuffs and the distilleries and breweries with which mills were often associated, contributed over one third of the total value of Guelph's industrial output. The urban mills were larger than the rural ones. James Goldie's People's Mill had an output worth three times that of the largest rural mill, William Pipe's Speedvale Mill, which was located just across Guelph's northern boundary. Large mills such as those of David Allan or James Goldie were the most substantial and profitable enterprises as well as the most solid and distinctive factory structures.

Apart from the large grain mills and artisanal shops, Guelph's industrial development was quite recent in 1871. Most of the larger enterprises recorded in the census had been founded in the 1860s. Guelph's remarkable specialization in the making of sewing machines dates from this time, with Charles Raymond's factory established in 1860/1 and the Guelph Sewing Machine Company (Wilkie and Osborn) as late as 1869. The manufacture of organs by William Bell dates from 1865 and by the McLeod Wood Company from 1868. The woolen and knitting factory of Armstrong McCrae was started in 1860. Various foundries and machinery shops enhanced Guelph's standing as a metal-working centre, notably Adam Robertson's Guelph Foundry (from 1847), Inglis & Hunter (from 1858), Crowe's Foundry (1867), Harley & Murchey (1870) and Levi Cossitt (1870). If the mills reported the highest values of production, the newer metal-working and machinery factories had the largest workforces.

⁴¹ For accounts of early industries in Guelph, see David Allan, "Early industrial life of Guelph," Wellington County Historical Society 3 (1935): 11-17; and relevant sections of Leo Johnson History of Guelph 1827-1927 (Guelph: Guelph Historical Society, 1977) and Robert A.M. Stewart, A Picture History of Guelph (Guelph, 2 vols, 1976 and 1978). Some impression of the variety of and demand for Guelph's industrial products may be obtained from prize lists in the provincial exhibitions around 1870, for example "Provincial Exhibition, 1871, Kingston: prize list," The Canada Farmer 3,2 (1871): 242-437.

Figure 12: Industry in Guelph, 1871: value of output by type of power



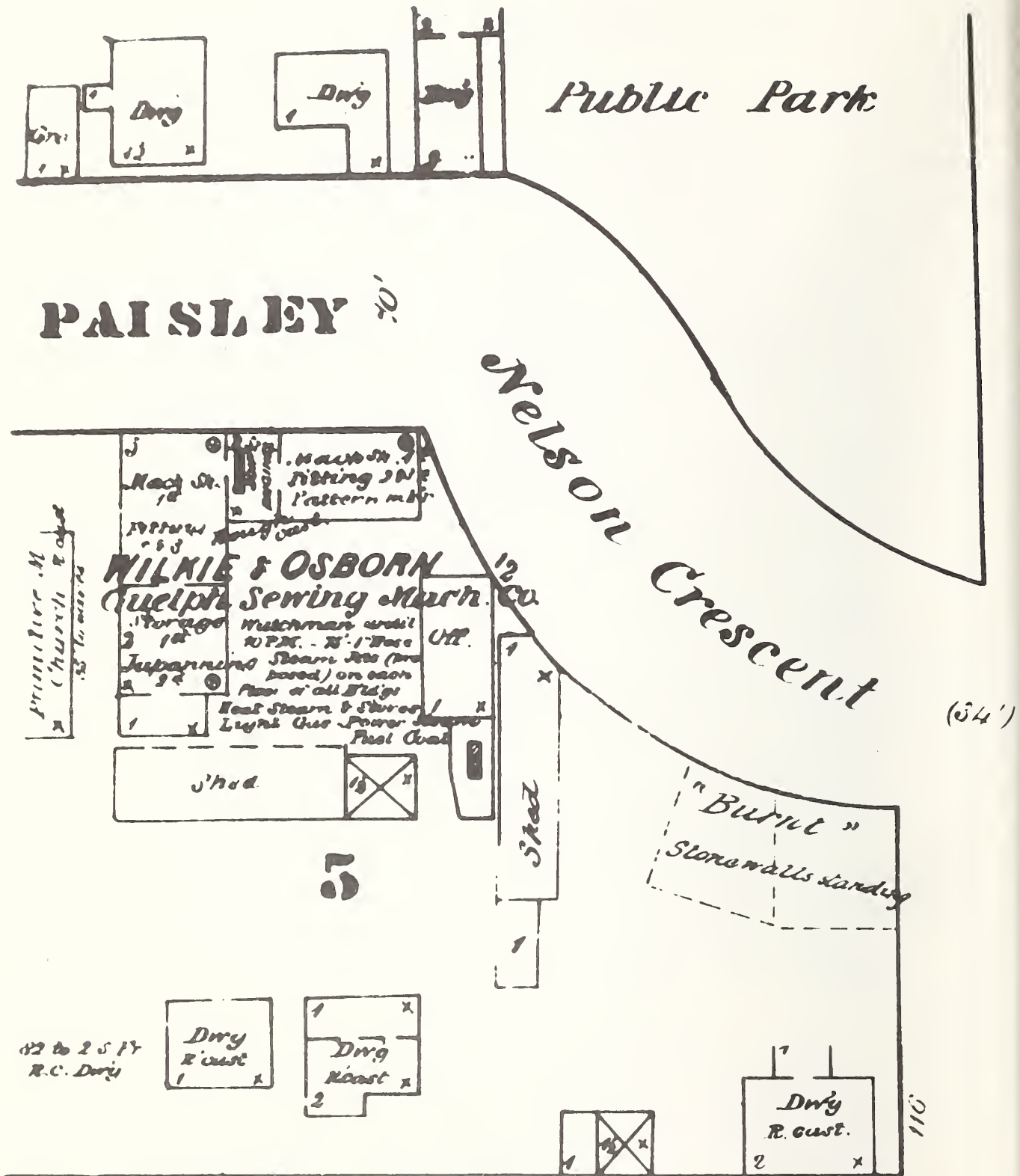


Plate 7: Excerpt from the Sanborn fire insurance plans of Guelph in 1875, showing the factory of the Guelph Sewing Machine Co., which was the largest industrial business in Wellington County in 1871 and ranked among the top 20 in Ontario on a combination of measures of employment, value of output, capital investment and value added.

Larger establishments, by any measure, were more characteristic of Guelph than of its surrounding rural area. The average number of workers in Guelph establishments was over ten, compared with only three in the mills and craftshops of the rural area. The average value of output per establishment was about \$17,625 in Guelph, in relation to \$7,710 in the rural area. Among the 28 Guelph enterprises that used inanimate power, steam engines were more significant than water wheels. Under one quarter of the horse power units reported by Guelph industries were generated by water wheels, compared with 90 per cent in the sample rural area.

Spatially, Guelph's industrial establishments were concentrated in and around the central commercial core (Figure 12). Two of every three businesses were located within a one-quarter-mile radius of St George's Square. On the main commercial streets of Wyndham and Macdonnell, most industrial activity was in lofts and shops above and behind the wholesale, retail and banking businesses at street level. This is represented by the concentration of the larger hand-powered businesses in the map around St George's Square and to the east. Some industrial enterprises did front on the central business streets, one being Robert Stewart's planing mill and sash and door factory built in 1869 on Wyndham Street (the site later used for the present Guelph Post Office). The newer machinery enterprises, most of them powered by steam, were mainly located around the northern and western margins of the commercial core. The railway line had little direct effect by 1871 on the precise siting of factories and workshops and there must have been a considerable cartage business hauling raw materials and manufactured goods between the railway stations and the factories.

Some of Guelph's industries must have served a much larger market than its immediate hinterland, especially for machinery products and organs. It seems likely that local enterprises already formed an interdependent complex by 1871, some making engines, boilers, castings and machine tools for others in the town. For one example, Crowe's Foundry certainly made castings for Charles Raymond's sewing machine business and probably for the larger Guelph Sewing Machine Company as well. In such activities as brewing, distilling and oil refining, Guelph probably served the whole area within a 20-mile radius and farther to the north and northwest as well.

* * * * *

The CANIND71 database offers ample scope for similar studies of local regions elsewhere in Ontario, Quebec, New Brunswick and Nova Scotia. The database is to be made available to users from the beginning of 1991. To begin with, we are satisfying orders for the whole database on computer tape. From April 1991, we are willing to respond to requests for printouts or select datasets for particular regions, communities, types of industry, or individual firms. Persons interested in using all or part of the database are invited to write for more details.

APPENDICES

Abbreviated code names for variables in the CANIND71 database or for derived indices are used in various tables in this report. A brief explanation of each code name follows:

AVWAGE:	Average monthly wage per worker in a firm, place or type of industry.
CDID:	Census district number used in 1871 census.
CDISTRIC:	Census district name used in 1871 census.
CED:	Census enumerator's division, a small part of a census district.
COMMENTS:	Additional remarks or comments for a firm entered in manuscript schedule.
EMPBOY:	Boys (males under 16 years) employed in industrial activity.
EMPGIRL:	Girls employed (females under 16 years) in industrial activity.
EMPMEN:	Men (males over 16 years) employed in industrial activity.
EMPWOM:	Women (females over 16 years) employed in industrial activity.
FIXCAP:	Value of fixed capital reported by proprietors.
FORCE:	Units (in "horse power" or HP equivalents) of non-manual power reported by proprietors.
MONTH:	Number of working months in year.
PROD1:	Named type of product, first to Nth, as numbered.
PROPRIOR:	Name of proprietor as stated in census schedules.
PQUANT1:	Quantity of named product, first to Nth, as numbered.
PUNIT1:	Unit of measurement of named product, first to Nth, as numbered.
PVALUE1:	Value of named product, first to Nth, as numbered.
RAWMAT1:	Named type of raw material, first to Nth, as numbered.
RQUANT1:	Quantity of named raw material, first to Nth, as numbered.
RUNIT1:	Unit of measurement of named raw material, first to Nth, as numbered.
RVALUE1:	Value of named raw material, first to Nth, as numbered.
SEC:	Major industry group, derived from combinations of SIC codes.
SIC:	Standard Industrial Classification.
SUMPROC:	Value of industrial production (\$).
SUMRAWC:	Value of raw materials used in industry (\$).
TOTEMP:	Total number of employees, the sum of EMPMEN, EMPWOM, EMPBOY and EMPGIRL.
TYPEEST:	Type of establishment as stated by enumerator in census schedules.
TYPEPOW:	Type of power reported: steam, water, horse, W/S (water/steam).
VADD:	Value added in manufacturing (\$) = production \$ - raw materials \$.
WAGES:	Wages paid to industrial workers (\$).

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0033	A-3		PLANING M/PUMP FC	251/315-P	3300	STEAM	10	2	600	200	1200	1000
0033	A-3		WEAVER	182-W	30			2	180		500	
0033	A-4		WOOL CLOTH FACTOR.	182	6000	WATER	12	7	1300	2800	4000	1200
0034	E-3		LIME KILN	358-L	20			2	12		62	
0035	D-3		BLACKSMITH FORGE	896	500			3	350	500	2000	1500
0035	E		LIME KILN	358-L	200			3	400	400	900	500
0034	F-2	ACKERT ADAM	PUMPMARKER	315-P	500			1	100	100	1000	900
0034	C-2	AIANST GILBERT ?	COOPER	259-C	100			1	150	250	3000	2750
0034	C-2	ALAN JAMES	LIME KILN	358-L	100			2	122	180	1080	900
0034	E-2	ALBOT WILLIAM	BLACKSMITH FORGE	896	100			1		200	300	100
0035	C-2	ALEXANDER GEORGE	SHOE SHOP	174	50			1	75	50	125	75
0035	C-1	ALEXANDER JAMES	WEAVER	182-W	30			2	200	215	420	205
0035	C-2	ALEXANDER NANCY	WEAVER	182-W	15			1	50	150	200	50
0034	C-1	ALL GEORGE	SHOEMAKER SHOP	174	50			1		200	400	200
0033	C-1	DAVID	FLOUR MILL	105	40000	WATER	70	16	6000	106000	129000	23000
0033	C-1	DAVID	DISTILLERY	109-D	35000	STEAM	40	10	5000	130110	170939	40829
0035	A-3	ALLAN GEORGE	SHOE SHOP	174	200			1	300	450	800	350
0035	A-1	ALLAN JAMES	BLACKSMITH SHOP	896	200			1	300	30	450	420
0034	F-4	ALLEN LEON	BLACKSMITH FORGE	896	1500			2		166	1120	954
0034	E-1	ALLEN WILLIAM	BLACKSMITH FORGE	896	100			1	200	800	1000	200
0034	I	ANDERSON JOHN	POTTERY	351-P	200			4	1000	300	3000	2700
0034	I	ANDERSON JOHN	SHOE SHOP	174	250			5	1500	1500	4000	2500
0034	D	ANDERSON MATHIE	BLACKSMITH/WAGONS	329	5000			8	2050	1750	5800	4050
0035	B-2	ANDERSON JAMES	SHOEMAKER SHOP	174				1	200	400	700	300
0033	C-2	ANDREWS & HUGHES	BAKERY	107	200			2	400	1200	2000	800
0035	C-3	ANDREWS JOSEPH	BLACKSMITH	896	400			2	350	470	1280	810
0033	A-3	ARCHIBALD JOHN	WEAVER	182-W	35			1	220		900	
0033	C-3	ARMES EDWIN	SEWING MACHINE FC	315-S	15000	STEAM	6	30	10000	5000	26000	21000
0034	G-1	ARMITAGE & HATT	COTTON FACTORY	181	7000	WATER	15	2	900	4000	7200	3200
0033	C-4	ARMSTRONG ANDREW	BAKERY	107	250			3	676	2575	4800	2225
0033	C-4	ARMSTRONG JOHN B	CARRIAGE FACTORY	329	10000			20	7000	1600	20000	18400
0033	B-1	ARMSTRONG JOHN S	FLOUR MILL	105	15000	WATER	40	4	1200	40000	40000	0
0033	C-1	ARMSTRONG WM & CO	BLACKSMITH/CARRIA	329	3700			6	2000	620	3100	2480
0033	C-1	ARMSTRONG/MCCRAE/	WOOLEN FACTORY	182/239	17000	STEAM	12	39	7000	12500	30000	17500
0033	A-4	ARRIS JAMES	WAGON SHOP	329	75			1	300	100	400	300
0034	D	ASH & MUIR & CO	FOUNDRY	311	10000	STEAM	15	22	8000	7000	25000	18000
0035	B-1	ASTELL ELLEN	WEAVER	182-W	25			1	100	180	400	220
0035	C-2	BAILEY JAMES	HARNES/SADDLE SH	179-S	100			2	350	1600	2300	700
0035	A-1	BAILY THOMAS	LIME KILN	358-L	50			2	50	24	80	56
0034	B	BAINIE JOHN &	WOOLEN FACTORY	182	6500	W/S	30	12	3000	17000	21000	4000
0033	A-3	BANNATYNE ALEXAND	BLACKSMITH FORGE	896	80			1	300	100	500	400
0035	C-2	BANSLEY JOHN	WEAVER	182-W	30			2	200	800	1000	200
0033	C-1	BARCLAY JAMES	CARPENTER SHOP	421-C	1000			13	5500	2250	10000	7750
0034	E-1	BARRY JAMES	STAVE FACTORY/COO	259-C	2500	STEAM	16	6	1250	1250	3000	1750
0034	C-1	BEATTIE GEORGE	LIME KILN	358-L	75			3		40	50	10
0033	C-1	BEATTY GEORGE	SADDLE/HARNES SH	179-S	2000			5	1500	2000	3000	1000
0035	C-3	BECK FREDERICK	TANNERY	172	1000	HORSE	1	1	300	1600	2800	1200
0034	F-4	BELL DONALD	SAW MILL	251	1400	STEAM	25	5	600	600	1360	760
0035	C-2	BELL THOMAS	SHOE SHOP	174	50			2	208	208	416	208
0033	C-1	BELL WM & CO	ORGAN/MELODEON FC	399-P	11300			32	16000	18000	35750	17750
0034	G-2	BELL JOHN	WEAVER	182-W	30			1		100	150	50

WELLINGTON COUNTY: ALL FIRMS BY NAME OF PROPRIETOR, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0034	C-2	BELL ROBERT	SHOEMAKER SHOP	174	250			2	250	300	900	600
0034	E-1	BENNER ROWLAND	BOOT/SHOE SHOP	174	150			1	50	200	400	200
0033	C-4	BERRY HENRY	CONFECTIONERY	108-C/107	7000			8	4000	6200	12000	5800
0035	B-1	BILLINGS JOSEPH	WOOLEN FACTORY	182	3000	STEAM	6	2	400	720	1340	620
0035	B-1	BIRD HENRY G	WOOLEN FACTORY	182	2500	STEAM	12	9	1100	5000	9400	4400
0034	E-3	BIRGE ALONSO	SAW MILL	251	900	WATER		2	130	300	600	300
0033	C-4	BISH PHILIP	MILLINERY	249-M	300			11	1000	9000	12000	3000
0035	E	BISSELL AMOS	TIN SHOP	304-T	2000			4	1000	600	3000	2400
0035	E	BODLEY CHARLES	CARPENTER SHOP	421-C	500			3	1000	250	1500	1250
0033	A-3	BONSER & MCNAIR	SHOEMAKER SHOP	174	100			2	700	1000	2000	1000
0033	C-4	BOULT STEPHEN	SASH/DOOR FACTORY	254	4000	STEAM	20	13	5770	4000	18000	14000
0035	C-1	BRIDGFORD & WRIGH	SAW MILL	251	2500	STEAM	18	2	50	650	1000	350
0035	A-2	BRIGHAM JOHN	SHOE SHOP	174	50			1	300	150	500	350
0033	C-2	BRILL JAMES T	PORK CURING	101-P	3000			3	900	48000	55200	7200
0034	F-3	BROWN EDWARD	WEAVER	182-W	20			1		50		
0034	B	BROWN GEORGE	MARBLE WORKS	353	2000			1	360	840	3750	2910
0034	F-1	BROWN JAMES	SAW MILL	251	1700	STEAM	20	2	500	2000	2600	600
0034	E-1	BROWN JOHN	BOOT/SHOE SHOP	174	20			1		180	600	420
0034	I	BROWN LOUIS	TAILOR	242	75			4	300	1200	2000	800
0035	C-3	BROWN & HOWES	SAW MILL	251	3500	STEAM	25	5	700	1400	3500	2100
0035	C-3	BROWN FRANCIS	SAW MILL	251	2000	STEAM	20	5	750	1800	3900	2100
0034	C-1	BROWN JAMES	SHOEMAKER SHOP	174	150			1		318	450	132
0035	A-2	BROWN LOUIS	TANNERY	172	1000	HORSE	1	1	60	1000	3000	2000
0033	C-4	BROWN LAW WILLIAM	CARPENTER/UNDERTA	254/258	100			2	400	400	1600	1200
0033	C-3	BRUCE G A	CARPENTRY	259	1000			9	3050	3600	12000	8400
0033	C-3	BRUCE G A	CARRIAGE SHOP	329	3500			16	8500	3000	14500	11500
0033	C-4	BUCKHAM ADAM	MILLINERY	249-M	75			2	180	1600	2500	900
0033	C-1	BURGESS JOHN	HARNES SHOP	179-S	200			1	400	500	625	125
0034	C-2	BURNETT GEORGE	LIME KILN	358-L	100			2	200	70	700	630
0034	F-2	BURT JAMES & DAVI	SAW MILL/SHINGLES	251/251-S	2000	WATER	15	2	200	1500	2100	600
0035	D-3	BUSCHELIN ANTHONY	BLACKSMITH FORGE	896	600			3	550	400	700	300
0035	B-4	BUSLIN PETER	SAW MILL	251	1000	WATER	20	2	60	100	300	200
0034	I	BUYERS & MEREDIT	CARRIAGE FACTORY	329	400			10	3000	4000	8000	4000
0035	B-3	BYERS JOSEPH	TAILOR SHOP	329	300			1	150	30	300	270
0034	F-3	BYRNE JOHN	BLACKSMITH/WAGONS	329/311	500			3	936	148	1722	1574
0034	G-1	CALDER JOHN	WEAVER SHOP	182-W	300			1		800	1600	800
0035	C-3	CALDWELL ROBERT	CHEESE FACTORY	104	1000	HORSE	2	3	150	526	875	349
0035	B-1	CALDWELL WILLIAM	WEAVER	182-W	75			2	150	300	650	350
0034	F-2	CAMPBELL ALEXAND	MERCHANT TAILOR	243	500			1	150	500	1588	1088
0034	F-1	CAMPBELL DUNCAN	WAGON SHOP	329	300			2	400	300	516	216
0034	F-3	CAMPBELL DUNCAN	JOINER SHOP	261	100			1		45	200	155
0034	I	CAMPBELL WM & SO	TANNERY	172	3000	STEAM	24	8	2600	5000	10000	5000
0034	I	CAMPBELL WM & SO	SHOE FACTORY	174	300			6	2800	4000	10000	6000
0033	A-3	CAMPBELL & ATKINS	WAGON/PLOUGH SHOP	329/311	100			2	720	250	1500	1250
0034	D	CAMPBELL & EAGLES	BAKERY	107	120			2	364	3600	5000	1400
0035	C-3	CAMPBELL ARCHIBAL	TAILOR	242	40			1	300	900	1300	400
0033	C-4	CAMPBELL CHRISTOP	SOAP/CANDLE FACTO	376	1200	STEAM	5	1	250	9200	10800	1600
0034	F-2	CANADA WILLIAM	TIN SHOP	304-T	1000			1	350	120	2400	2280
0034	F-3	CARMICHAEL MALCOL	TAILOR SHOP	242				1			400	
0034	A-1	CARPENTER AMASA	BLACKSMITH FORGE	896	200			2	30	160	500	340
0033	B-1	CARROLL EDWARD	LIME KILN	358-L	400			8	600	400	4000	3600

WELLINGTON COUNTY: ALL FIRMS BY NAME OF PROPRIETOR, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0034	E-1	CARSON	WILLIAM	CARPENTER SHOP	421-C	600	.	4	800	500	5000	4500
0035	C-3	CASHER	CABINET SHOP	261	900	STEAM	5	2	400	120	1040	920
0033	C-2	CHAMBERS	DAVID	WEAVING SHOP	182-W	400	.	3	500	1100	1625	525
0033	C-1	CHANCE &	WILLIAM	CLOTHING SHOP	242	2500	.	28	10000	10000	36000	26000
0034	I	CHAPMAN	WILLIAM	TAILOR	242	.	.	3	400	1000	2000	1000
0033	C-4	CHASE	CALEB	BLACKSMITH/WAGONS	329	1500	.	4	1200	250	700	450
0035	E	CHEESEMAN & BEGG	CABINET SHOP	261	2000	HORSE	2	4	1000	1000	3000	2000
0034	C-2	CHEESMAN JOHN	STAVE FACTORY	251	2000	STEAM	15	12	1200	1700	5600	3900
0034	C-2	CHEESMAN JOHN	STAVE FACTORY	251	2000	STEAM	.	12	1200	1700	5600	3900
0034	B	CHERRICK	ROBERT	TAILOR SHOP	242	100	.	3	500	1830	3298	1468
0034	I	CHISHOLM K & CO	MILLINERY/MANTLES	249-M/244	800	200	.	2	250	2500	3500	1000
0035	D-3	CHURCH GEORGE	BLACKSMITH FORGE	896	500	WATER	40	10	180	400	1500	1100
0034	E-1	CLARK	DAVID	FLOUR MILL	105	10000	.	.	2500	31860	40460	8600
0034	E-1	CLARK	MALCOLM	BOOT/SHOE SHOP	174	100	.	1	150	150	350	200
0033	C-2	CLARK & ORANGE	COAL OIL REFINERY	365	3000	STEAM	8	6	1300	4000	10800	6800
0034	E-1	CLARK DAVID	COOPER SHOP	259-C	2000	WATER	.	4	1000	1000	3000	2000
0035	A-1	CLARKE JAMES	BRICK YARD	351-B	200	.	.	3	50	15	500	485
0034	F-3	CLAYTON MARGARET	WEAVER	182-W	20	.	.	1	.	160	600	440
0035	C-1	CLEMENSHAW WILLIA	WEAVER	182-W	50	.	.	1	100	142	360	218
0033	B-2	CLEMENTS JOHN	WAGONS/BLACKSMITH	329/896	2000	.	.	4	800	300	1480	1180
0034	G-1	CLYNE JAMES	TAILOR SHOP	242	300	.	.	1	.	800	1200	400
0033	A-2	COBER BROS	CARRIAGES/SHINGLE	329/251-S	200	STEAM	16	8	1800	200	3175	2975
0035	C-3	COCKWELL JOHN	LIME KILN	358-L	50	.	.	1	17	50	135	85
0034	E-2	COGHLIN GEORGE	WAGON SHOP	329	500	.	.	2	150	375	1500	1125
0035	F	COLE JOHN	WEAVER	182-W	15	.	.	1	50	95	150	55
0033	A-3	COZENS CHARLES	SHOEMAKER SHOP	174	50	.	.	1	300	350	700	350
0034	E-1	COOK	OTHELLO	CABINET SHOP	261	200	.	1	.	40	80	40
0035	B-1	COOKMAN JAMES	GRAIN CRADLE FACT	306	12	.	.	2	80	100	300	200
0035	A-3	COOPER JERIMINA	MILLINER SHOP	249-M/244	100	.	.	2	200	580	800	220
0033	C-1	CORMICK	JAMES	CLOTHING	242	4000	.	22	6000	4000	15000	11000
0034	B	CORNWALL	FREDERI	MERCHANT TAILOR	242	800	.	5	700	1000	2500	1500
0033	C-3	COSSITT	LEVI	AG IMPL/SASH/DOOR	311/254	5000	10	11	3200	3500	10000	6500
0033	C-3	COUCH	THOS	BOOT/SHOE SHOP	174	50	.	1	200	275	550	275
0033	C-4	COULSON	HANNAH	MILLINERY	249-M	59	.	3	50	200	250	50
0034	C-2	COURRIE DUNCAN	TIN SHOP	304-T	300	.	.	1	200	300	500	200
0035	B-1	COUSLAND ARCHIBAL	WEAVER	182-W	100	.	.	2	200	100	200	100
0033	B-3	COWAN WALTER	AGRC IMPLEMENT FC	311	200	HORSE	1	2	50	200	1000	800
0034	D	CRAIG J & R	PRINTING/NEWS REC	289	1700	.	.	6	1600	1200	5000	3800
0035	C-2	CRAIG JOHN	TAILOR	243	200	.	.	2	400	2400	3228	828
0034	I	CRAWFORD/FITZGERA	CABINET FACTORY	261-B	400	STEAM	4	4	1200	1000	3000	2000
0035	B-1	CRASSY SIMON	BRICK FACTORY	351-B	150	HORSE	4	3	431	50	960	910
0035	E	CRILLY	TAILOR	242	1000	.	.	1	60	1100	2200	1100
0033	C-3	CROFT	NATHANI	TAILOR SHOP	242	.	.	3	400	1100	1500	400
0035	B-2	CROOKSHANKS SAMUE	BLACKSMITH FORGE	896	400	.	.	1	100	200	550	350
0034	I	CROOKSHANKS WILLI	BLACKSMITH SHOP	896	100	.	.	1	40	200	1000	800
0035	B-4	CROSWELL & FRENCH	BRICK FACTORY	351-B	200	HORSE	1	5	300	70	370	300
0035	B-4	CROSWELL C & C	BRICK FACTORY	351-B	200	HORSE	1	4	180	80	300	220
0033	C-3	CROWE JOHN	IRON FOUNDRY	294	4000	STEAM	7	28	10000	7000	20000	13000
0035	B-2	CROZIER JOHN	TANNERY	172	600	HORSE	1	1	400	1100	2000	900
0035	E	CRUSE JAMES	WAGON SHOP	329	250	.	.	1	300	300	1200	900
0034	B	CULLODEN W G	PRINTING OFFICE	286	800	.	.	4	864	425	2000	1575

WELLINGTON COUNTY: ALL FIRMS BY NAME OF PROPRIETOR, 1871

CDID	CED	PROPRIOR	TYPEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0034	E-1	CUNNINGHAM JOHN	TAILOR SHOP	242	250			2	150	150	500	350
0035	G	CURRY JAMES	BLACKSMITH SHOP	306	200			1	200	300	1000	700
0035	G	CURRY JOHN	WAGON SHOP	329	100			2	150	40	650	610
0034	B	CUTHBERT & NOBLE	CARRIAGE SHOP	329	2000			6	400	710	2450	1740
0033	C-1	DABLEN JAMES	CARPENTER SHOP	254	100			2	500	660	2000	1340
0034	B	DALBY R & J	TANNERY	172	4000	STEAM	8	3	1000	6835	10000	3165
0035	A-1	DALY ROBERT	COOPER SHOP	259-C	50			1	60	4	75	71
0034	I	DANIELS WILLIAM	FARM IMPLEMENT SH	311/254	500	HORSE	2	3	900	360	3000	2640
0033	B-3	DARBY JOHN	BLACKSMITH SHOP	309	500			2	200	300	1000	700
0034	D	DASS JAMES	CLOTHING SHOP	242	3000			10	2500	7000	10000	3000
0035	C-2	DAWSON ANN	WEAVER	182-W	40			1	20	80	100	20
0034	B	DAY EBENEZE	CARRIAGEMAKER SHO	658				1		25	600	575
0035	A-2	DEEBEL JOHN	SHOEMAKER	174	700			3	250	600	1300	700
0035	F	DENSMORE ADAM	WEAVER	182-W	30			1	60	188	275	87
0034	H-1	DEPEW PETER	BLACKSMITH FORGE	896	20			2	550	150	700	550
0035	A-1	DICKSON JAMES	SHINGLE FACTORY	251-S	500	STEAM	6	5	150	50	198	148
0034	A-1	DIPPLE NICHOLAS	LIME KILN	358-L	20			4	50	10	112	102
0034	F-2	DODD THOMAS	GRIST/OATMEAL MIL	105/105-O	500	WATER	30	1	240	18480	18600	120
0034	F-3	DOLMER JOHN	WEAVER	182-W	15			1		47	180	133
0035	G	DONEY GEORGE	BLACKSMITH SHOP	896	100			1	150	175	600	425
0034	I	DONNER SEPHA	TIN SHOP	304-T	300			3	1100	2000	4000	2000
0035	C-2	DOUGLAS SAMUEL M	BOOT/SHOE SHOP	174	150			2	600	800	2000	1200
0035	B-3	DOWNING JOHN W	CARRIAGE/WAGON FC	329	1000			6	800	590	1500	910
0034	I	DRIVER THOMAS	COOPERAGE	259-C				1		50	573	523
0035	C-3	DULMAGE AGNES	MILLINERY	244	200			3	150	1000	1400	400
0034	E-1	DUNBAR ROBERT	LIME KILN	358-L	100			2	200	260	550	290
0035	B-3	DUNHAM WILLIAM	CARRIAGE/WAGON FC	329	500			2	300	159	250	91
0034	E-1	DUTTON JOHN W	BOOT/SHOE SHOP	174	150			1	150	450	750	300
0034	C-2	EBY JACOB	GRIST MILL	105	12000	WATER	40	5	1500	60000	75000	15000
0035	B-2	ECKLIN JAMES	CABINET SHOP	261				1	300	100	500	400
0034	F-3	EDMONDS JOSEPH	BAKERY	107	80			2		1000	1375	375
0034	A-3	ELKERTON WILLIAM	SAW MILL	251	200	WATER	8	1	25	25	80	55
0033	A-3	ELPHNER GEORGE	BLACKSMITH FORGE	896	40			2	350	300	1000	700
0033	C-2	EMSLIE ROBERT	LIME KILN	358-L	3000			10	2100	719	4320	3601
0034	E-2	EVERTS RUFUS	FLOUR MILL	105	8000	WATER	32	4	800	1150	2000	850
0034	E-2	EVERTS RUFUS	SAW MILL	251	500	WATER	20	1	50	100	300	200
0035	D-3	FAIR JOHN	WAGONMAKER SHOP	329	400			2	300	1800	3000	1200
0035	D-3	FARMER ROBERT	SAW MILL	251	15000	STEAM	25	4	500	3000	5000	2000
0035	D-3	FARMER THOMAS	WAGONMAKER SHOP	329	500			1	240	108	600	492
0034	E-1	FARRISH WILLIAM	FLOUR MILL	105	15000	WATER	40	5	1100	33000	37500	4500
0034	E-1	FARRISH WILLIAM	OATMEAL MILL	105-O	6000	WATER	15	4	700	14000	16000	2000
0034	B	FARROW EDWARD	PUMP FACTORY	315-P/259	200			1	200	145	1000	855
0033	C-3	FEAST ALFRED	MARBLE CUTTER	353	200			2	520	250	1100	850
0033	C-2	FERGUSON ALEXAND	GRIST MILL	105	1600	W/S	28	1	250	13500	9397	-4103
0034	A-1	FERGUSON PETER	WEAVER	182-W	50			2	20	700	1000	300
0034	H-1	FINLAY JAMES	LIME KILN	358-L	100			3	320	250		
0033	C-3	FIRESTONE CHARLES	CABINETMAKER	261	150			1	96	800	1200	400
0035	B-2	FISHER GEORGE	BOOT/SHOE SHOP	174	100			2	150	1000	1500	500
0033	A-3	FISCHER GOTLIEB	CABINETMAKER SHOP	261	300			2	200	50	650	600
0034	C-2	FISHER CHRISTIAN	CABINET FACTORY	261	600			1	150	25	300	275
0034	B	FITZGERALD JOHN	BLACKSMITH SHOP	896	400			1	182	465	1000	535

WELLINGTON COUNTY: ALL FIRMS BY NAME OF PROPRIETOR, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0034	F-3	FITZGERALD WILLIA	SHOEMAKER	174	150			2	300	750	1125	375
0034	I	POLEY JOHN	PRINTING OFFICE	286	4000			5	1100	400	2500	2100
0034	D	FORBES ALEXAND	BOOT/SHOE SHOP	174	2000			4	800	1500	1500	1500
0035	A-1	FOREST CHARLES	BLACKSMITH SHOP	896	500			2	300	400	1000	600
0034	E-2	FORSYTH WILLIAM	BLACKSMITH SHOP	896	500			2	75	250	1000	750
0034	F-2	FOSTER SALEM	TANNERY	172	1000			2	600	1000	1850	850
0035	A-1	FOUMGNER MICHEL	SAW MILL	251	2000	STEAM	28	4	400	600	1100	500
0034	I	FOUNTAIN BENJAMI	TAILOR	242	100			3	150	2000	3000	1000
0035	A-3	FOZER WILLIAM	BRICK KILN	351-B	80			2	200	50	300	250
0035	B-3	FRANCES JOHN	SHOEMAKER SHOP	174	400			1	150	30	200	170
0034	F-3	FRANKLIN BENJAMI	TIN SHOP	304-T	225			1		409	600	191
0033	C-4	FRASER GEORGE	MILLINERY	249-M	500			4	500	1000	2000	1000
0034	B	FRASER J & CO	FLOUR MILL/DISTIL	105/109-D	30000	WATER	70	9	3000	270000	300000	30000
0033	C-4	FRASER THOMAS	WOOD TURNING SHOP	259-W	1000	STEAM	10	2	350	2000	4500	2500
0035	D-3	FRASER ALEXANDER	SHINGLE FACTORY	251-S	1000	STEAM	15	8	1600	750	2250	1500
0035	D-3	FRASER JOHN	HARNESS SHOP	179-S	300			3	200	500	1500	1000
0034	B	FRIES ADAM	TAILOR SHOP	242	600			4	500	1000	2000	1000
0035	C-3	FULTON GEORGE	SAW MILL	251	3000	WATER		4	600	1700	3500	1800
0034	C-1	GABELL JOHN	WEAVER	182-W	50			1		300	520	220
0034	A-2	GAINNS JAMES	WEAVER	182-W	26			1			450	
0033	C-3	GALLOWAY WILLIAM	MILLINERY/MANTLES	244	40			4	400	1400	3000	1600
0035	C-1	GARDNER ALEXANDER	SHOE SHOP	174	3000	STEAM	12	5	1200	2900	5800	2900
0034	F-3	GAUD WILLIAM	TANNERY	172	40			1	350	400	1000	600
0033	A-3	GAYER JOHN	SHOE SHOP	174	100			5	1600	3800	6400	2600
0034	D	GERRIE ALEXAND	SADDLE/HARNESS SH	179-S	100			7	600	500	1600	1100
0034	D	GIBBON C & A	MILLINERY/DRESSMA	249-M/244	100			1	400	100		
0033	A-2	GIBBON THOMAS	BLACKSMITH	896	40			1	200	600	850	250
0035	C-3	GIBSON EDMOND	TAILOR	243	40			3	400	1000	2000	1000
0035	C-2	GILHULLY RICHARD	BLACKSMITH FORGE	896	500			1	400	500	1200	700
0034	D	GILMOUR JOHN	CABINET SHOP	261	400			6	1800	600	3400	2800
0034	C-2	GLADSTONE JAMES	SHOE PEG FACTORY	259	1000	WATER	15	2	400	500	1100	600
0035	C-2	GLEASON EDWARD	BOOT/SHOE SHOP	174	110			1	300	430	1380	950
0035	B-1	GLENN JOHN	BLACKSMITH SHOP	329/261	200			3	600	1000	1600	600
0035	E	GODFREY ALEXAND	BOOT/SHOEMAKER	174	1500			1	300	400	1000	600
0034	B	GODFREY JOHN	SHOE SHOP	174	600			38	15000	260000	275000	15000
0033	C-4	GOLDIE JAMES	FLOUR MILL/COOPER	105/259-C	30000	WATER	160	2	230	700	2500	1800
0034	B	GORDON ANDREW	SADDLE/HARNESS SH	179-S	2000			1	180	600	1200	600
0035	B-2	GORDON THOMAS H	BLACKSMITH FORGE	329	500			3	300	2000	3500	1500
0034	I	GRAHAM & MOORE	SADDLER/HARNESS S	179-S	500			2	400	800	1700	900
0035	C-3	GRANT FREDERICK W	SHOEMAKER	174	200			1	195	245	625	380
0034	B	GRAY WILLIAM	LIME KILN	358-L	300			2	80	60	500	440
0035	A-2	GRAY JOHN	WAGON SHOP	329/311	9000	WATER	50	9	1200	3800	8000	4200
0035	A-2	GRAY MATTHEW	SAW MILL	251	4000	WATER	25	1	450	10400	12000	1600
0035	A-2	GRAY MATTHEW	FLOUR MILL	105	4000	STEAM		2	60	140	2000	1860
0035	B-3	GREEN & LOWS	GRIST MILL	105	30			1	192	60	500	440
0034	B	GREENAWAY & HAYES	BLACKSMITH SHOP	896	450			2	500	500	1200	700
0035	B-1	GREIG PETER	BOOT/SHOE SHOP	174	13			1	200	172	400	228
0035	F	GREVE JOHN	WEAVER	182-W	100			1	150	150	500	350
0035	G	GREY RICHARD	BLACKSMITH SHOP	896	700			3	1000	500	2000	1500
0035	E	GRUER WILLIAM	CARPENTER SHOP	254	2000	STEAM	40	2	60	3274	3601	327
0035	A-3	GUBB WM	GRIST MILL	105								

WELLINGTON COUNTY: ALL FIRMS BY NAME OF PROPRIETOR, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0035	A-3	GUBB WM	SAW MILL	251	1000	STEAM	40	4	228	120	340	220
0033	C-1	GUELPH GAS COMPAN	GAS CO	574	30000			2	730	1128	1040	-88
0033	C-3	GUELPH SEWING M C	SEWING MACHINE FC	315-S	65000	STEAM	12	180	75000	62000	204800	142800
0034	G-1	GULLY JOHN	BLACKSMITH SHOP	896	200			1		60	300	240
0035	F	HAIGHT STILAS E	BLACKSMITH FORGE	896	150			1	150	120	800	680
0034	I	HALEY HUGH	BRICK YARD	351-B		HORSE	1	5	550		1150	
0034	I	HALEY HUGH	PLANING MILL	251	400	STEAM	10	1	300	500	1000	500
0035	E	HALL ROBERT	SHOE SHOP	174	200			1	300	200	400	200
0033	C-2	HALLIDAY THOMAS	BREWERY	109-B	6000	WATER	6	6	1900	8400	18900	10500
0035	B-2	HAMBLY THOMAS	BLACKSMITH FORGE	896	200			1	160	140	300	160
0034	B	HAMILTON HUGH	BLACKSMITH SHOP	896	1000			2	400	465	1700	1235
0034	F-2	HAMILTON JOHN	LIME KILN	358-L	200			1	100	118	600	482
0034	I	HAMILTON SAMUEL	WINDOW SASH FACTO	254	10			1		20	200	180
0033	C-3	HARDY ALBERT	ORGAN FACTORY	399-P	200			4	2100	11000	18000	7000
0033	C-1	HARLEY FRANK & CO	IRON/BRASS FOUNDR	294/297	1000	STEAM	6	4	1650	1565	8600	7035
0035	A-3	HARRINGTON THOMAS	WAGON SHOP	329/311				1	300	100	414	314
0034	F-2	HARRIS JOHN	SPINNING WHEEL FC	315-H	200	HORSE	1	1		10	150	350
0034	F-3	HARRIS JOHN T	BLACKSMITH FORGE	896	100			1		150	500	350
0034	E-1	HARRIS & CO	WOOLEN FACTORY	182	18400	WATER	40	17	3250	9600	20000	10400
0034	E-1	HARRIS & CO	SAW MILL	251	1500	WATER	40	2	400	450	1000	550
0033	C-1	HARRIS JOHN	CONFECTIONER/BAKE	107/108-C	5000			5	1560	9750	13570	3820
0034	C-2	HARRIS MICHAEL	LIME KILN	358-L	60			1	40	100	250	150
0035	A-3	HASTINGS THOMAS	BLACKSMITH SHOP	896	300			2	500	200	1000	800
0035	D-3	HATHAWAY JOHN	GRIST MILL	105	3500	STEAM	20	2	450	4800	6000	1200
0034	F-1	HAWKINS JOHN	BLACKSMITH FORGE	896	400			1		510	750	240
0034	D	HAY WILLIAM	CARPENTER SHOP	421-C	70			3	900	300	1500	1200
0034	C-1	HAYNEBERRY JAMES	FLAX MILL	189-F	1000	WATER	15	12	3000	1800	7000	5200
0033	C-3	HAZELTON JAMES	CABINETMAKER SHOP	261	5000			4	1200	400	4200	3800
0033	C-4	HAZELTON JAMES	CABINET SHOP	261				2	450	150	1000	850
0034	F-1	HEASMAN WILLIAM	BLACKSMITH FORGE	896	600			2	400	710	1200	490
0033	C-4	HEATHER WILLIAM	SADDLE/HARNES SH	179-S	1600			7	600		3500	
0033	C-4	HEFFERNAN BROS	CLOTHING	242				33	8000	10000	20000	10000
0035	C-2	HEINS JOHN	CARPENTER SHOP	254	200			2	300	50	700	650
0035	F	HENDERSON ROBERT	WEAVER	182-W	50			1	300	429	999	570
0035	A-1	HENDERSON THOMAS	CHEESE FACTORY	104	100			2	46	8	54	46
0034	E-3	HENDERSON WILLIAM	WEAVER SHOP	182-W	100			3	20			
0035	A-2	HENDRY CHARLES	FLAX MILL	189-F	1500	WATER	16	40	6500	1480	8900	7420
0035	A-2	HENDRY CHARLES	SAW MILL	251	500	WATER	16	3	800	1600	2250	650
0033	C-4	HEPBURN JOHN &	SHOE/BOOT FACTORY	174	900			29	7800	8000	20000	12000
0034	F-3	HEW & BRO	GRIST/LOUR MILL	105	9000	WATER		3	550	20000	25000	5000
0033	A-4	HEWER WILLIAM	SHOEMAKER SHOP	174	30			1	50	50	70	20
0034	I	HEWITT ROBERT	BRICK YARD	351-B	500			6	1000		2000	
0035	G	HICKS & EVANS	LIME KILN	358-L	85			2	85	100	225	125
0035	G	HICKS & EVANS	ASHERY	378-P	85			1	165	200	600	400
0034	F-3	HILL JOHN	BLACKSMITH FORGE	896	300			1		180	500	320
0034	C-2	HILL JOHN	COOPER	259-C	55			1		16	66	50
0034	H-1	HILL ROBERT	BLACKSMITH FORGE	896	400			2	600	200	800	600
0035	C-3	HILLHOUSE JOHN	TIN/COPPER/IRONWA	304-T	1850			1	240	695	1665	970
0035	C-3	HINCHBURGER PAUL	SHOEMAKER	174	500			1	300	500	950	450
0034	F-2	HOAR WILLIAM	WEAVER SHOP	182-W	20			1			50	
0033	A-3	HOCKINS JOHN	SHOEMAKER SHOP	174	120			1	250	160	500	340

CDID	CED	PROPRIOR	TYPEBEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0033	A-3	HOEBERGER ERHARDT	WEAVER	182-W	50			1	150			
0034	D	HOLLAND & CO	BREWERY	109-B	5000 STEAM		5	4	1240	3800	6000	2200
0035	D-3	HOLLINGER JOHN F	TANNERY	172	2000 HORSE		1	4	600	1500		1500
0035	A-3	HOLMES THOMAS	CARDING FACTORY	189-W	2000 STEAM		4	2	300	4000	4600	600
0035	A-3	HOLMES THOMAS	FULLING MILL	189-W	STEAM		4	1	26	697	1800	1103
0035	A-3	HOLMES THOMAS	SHINGLE FACTORY	251-S	STEAM		4	3	179	240	736	496
0034	C-2	HOMBERGE GODLIP	SHOEMAKER SHOP	174	200			1	200	300	600	300
0035	E	HONEY JAMES	BLACKSMITH SHOP	896	300			3	600	300	3000	2700
0033	B-1	HOOD & MCCRAE & C	BEEF PACKING HOUS	101				15	700	35000	42000	7000
0033	C-1	HOOPER WM & CO	BLACKSMITH SHOP	896	200				800	408	1240	832
0034	E-1	HORTOP HENRY	FLLOUR MILL	105	6000 WATER		40	5	1800	45000	50000	5000
0034	E-1	HORTOP HENRY	OATMEAL MILL	105-O	2000 WATER		10	2	364	4500	5200	700
0034	E-1	HOWIE ANDREW	BLACKSMITH FORGE	896	200			1	150	400	900	500
0034	E-1	HOWSON JOHN	BLACKSMITH FORGE	896	120			1	39	126	87	
0035	F	HUGHES REBECA	WEAVER	182-W	20			1	90	203	345	142
0034	I	HUGHSON ANDREW	LIME KILN	358-L				1	100		300	
0034	D	HUNTER JOHN	BLACKSMITH SHOP	896	200			3	700	560	1650	1090
0034	E-2	HUNTER ALEXAND	COOPERAGE	259-C/251	1000 STEAM		12	5	1500	1200	1700	500
0033	C-4	HUNTER JOHN	MILLINERY	249-M	150				350	1200	2000	800
0035	B-4	HUTCHISON ALEXAND	SAW MILL	251	2000 STEAM		20	2	350	2400	4500	2100
0034	E-3	HUXTABLES JAMES	SAW MILL	251/251-S	3000 WATER		20	3	240	1000	2000	1000
0033	C-4	INGLIS & HUNTER	FOUNDRY/MACHINE S	315-E/301	12000 STEAM		12	48	20000	3800	30000	26200
0033	C-1	INNES JAMES	PRINTING/MERCURY	289	15000			12	5000	6000	15000	9000
0034	I	IRWIN FRANCIS	MILLINERY	249-M/244					250	1500	2500	1000
0034	F-2	IRWIN SAMUEL	COOPER SHOP	259-C	500			3	700	510	1310	800
0034	F-2	IRWIN SAMUEL	ASHERY	378-P	400			2	400	425	1400	975
0034	A-1	ISAAC JAMES	BLACKSMITH FORGE	896	300			2	160	500	340	340
0034	E-1	JACKSON ANTHONY	BOOT/SHOE SHOP	174	300			2	600	480	1200	720
0034	E-1	JACKSON ANTHONY	TAILOR SHOP	243	300			1	75	350	750	400
0034	I	JACKSON THOMAS	SADDLE/HARNES SH	179-S				7	1200	2600	5000	2400
0035	A-3	JACKSON WILLIAM	WEAVER	182-W	40			2	75	336	600	264
0035	E	JAMES GEORGE	CARDING/DRESSING	189-W	2500 STEAM		15	4	300	400	1200	800
0035	G	JELLY WM	SAW MILL	251	1000 WATER		15	0				
0033	B-3	JENKINSON WILLIAM	TAILOR SHOP	242	200			2	400	1000	2000	1000
0034	B	JOHNSON W H	GUNSMITH SHOP	897-G	200			1	300	25	600	575
0034	C-2	JOHNSON & SIMPSON	BLACKSMITH SHOP	896	1000			1	275	800	2000	1200
0034	C-2	JOHNSON & SIMPSON	WAGONMAKER SHOP	329	1000			3	256	275	1000	725
0034	D	JOHNSTON & BROS	TANNERY	172	10000 STEAM		20	5	2000	30000	50000	20000
0034	I	JOHNSTON & LINDSA	MILLINERY/MANTLES	244/249-M	250			6	2000	5000	8000	3000
0035	G	JOHNSTON JOHN	GRIST/SAW MILL	105/251	5000 WATER		30	2	700			
0034	I	JONES JOHN	BLACKSMITH SHOP	896	50			1	150	100	800	700
0034	I	JULL THOMAS	GRIST MILL	105	1500 STEAM		40	2	800	35000	40000	5000
0034	I	JULL THOMAS	SAW MILL	251	2000 WATER		17	4	1000	2000	3600	1600
0034	G-1	JUPP ONSLOW	WAGON SHOP	329	300			1	240	150	800	650
0034	C-2	KALING CHARLES	SASH FACTORY	254	250			2	300	600	1000	400
0035	B-1	KAULVERS CHARLES	BLACKSMITH SHOP	896	350			2	300	50	100	50
0034	E-2	KAVANOUGH JAMES	SHOE SHOP	174	500			2	150	350	475	125
0033	C-4	KAY JOHN	BRASS FOUNDRY	297	200			1	200	200	400	200
0035	B-1	KEARNS WILLIAM	WEAVER	182-W	60			2	120	40	250	210
0035	B-3	KEITH DANIEL	WAGON SHOP	658	150			1	200	60	300	240
0033	C-4	KELLY BERNARD	COOPER/STAVE FACT	259-C	1000 STEAM		14	6	1800	1250	4690	3440

WELLINGTON COUNTY: ALL FIRMS BY NAME OF PROPRIETOR, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0034	D	KELLY	DAVID B	179-S	100			2	750	1500	2500	1000
0035	A-1	KELLY B G	TIN SHOP	304-T	1000			2	60	150	300	150
0034	E-3	KELVIE	JAMES M	174	150			1		600	800	200
0034	F-4	KEMARD	JOHN	182-W	10			1		316	650	334
0034	B	KENNEDY	JOHN	259-C	1000			6	2400	1150	4600	3450
0034	B	KERFOOT	ISAAC	174	100			1	160	600	900	300
0034	B	KERR	WILLIAM	174	3500			2	600	1250	3500	2250
0035	B-1	KERR CHARLES	WEAVER	182-W	35			1	60	30	200	170
0034	D	KEY	CHARLES	251	300	WATER	30	5	1100	1500	3500	2000
0035	E	KILGOUR	ROBERT	311	6000	STEAM	10	17	6000	5000	18000	13000
0035	A-3	KILPATRICK	JOSEPH	896	400			2	330	260	1000	740
0034	C-2	KILPATRICK	ROBERT	329	600			1	450	50	500	450
0034	G-1	KING PETER	TANNERY	172	8000	STEAM	15	7	3000	12000	22000	10000
0033	C-3	KIRKLAND	THOS	259	200			3	700	1400	3000	1600
0034	B	KIRKMAN	ALFRED	399-B	1800			4	900	2560	5000	2440
0034	E-1	KNOWLES	JAMES W	179-S	1000			2	600	820	2060	1240
0033	C-1	KRIBS	DANIEL	358-L	300			2	200	160	450	290
0033	A-3	LAING & HANNING	BLACKSMITH/WAGONS	329/896	200			4	1200	500	3000	2500
0035	B-3	LAIRD GEORGE	BLACKSMITH FORGE	896	150			1	200	150	600	450
0035	C-2	LAMBERT R G	AGRC IMPLEMENT FC	311	4000	STEAM	25	4	1600	2180	7000	4820
0035	C-2	LAMBERT	WILLIAM	182	1000	STEAM	10	6	906	3000	5000	2000
0035	C-2	LAMBERT	WILLIAM	189-W				1	300	1500	1965	465
0034	B	LANDE	HENRY	174	500			2	550	525	1800	1275
0034	D	LANE	SHINGLE FACTORY	251-S	300	STEAM	20	5	1200	800	3000	2200
0034	G-1	LANE HENRY	ASHERY	378-P	1000			3	700	750	1600	850
0035	C-2	LANG JOHN	LIME KILN	358-L	10			1	20	10	40	30
0034	F-4	LARSEN	BENJAMI	251-S	500	WATER		3		30	240	210
0034	C-2	LAWRENCE JOHN	SHINGLE MACHINE	242	1600			2	200	1500	3000	1500
0035	B-3	LEEDINGHAM & MILN	SAW MILL	251	3000	STEAM	20	2	400	500	1500	1000
0034	I	LESTER	JAMES	304-T	250			3	650	2500	4500	2000
0033	C-3	LEWIS	JOHN L	365	10000	STEAM	12	8	3840	25000	35000	10000
0034	D	LITTLE	WILLIAM	311	50			1	200	200	600	400
0033	C-4	LITTLE WILLIAM JA	WAGON SHOP	107/108-C	770			6	1740	12064	15000	2936
0034	I	LLOYD	WILLIAM	107	300			2	600	2000	3000	1000
0034	G-1	LOCHER JOHN	BAKERY	315-P	200			1		40	300	260
0034	D	LOCKMAN & WILSON/	PUMP FACTORY	315-S	15000	STEAM	25	75	22000	20000	75000	55000
0035	B-3	LOONEY DAVID	SEWING MACHINES	174	400			3	400	500	800	300
0034	E-2	LOREE	SHOEMAKER SHOP	896	500			2	200	200	1200	1000
0034	I	LUTTON & GERMAN	BLACKSMITH FORGE	353				3	900	1000	3000	2000
0034	C-1	MAITLAND WM & JOH	MARBLE WORKS	896	2500			8	1500	2800	7140	4340
0034	B	MANN & FENWICK	TAILOR SHOP	242	700			1	150	1560	2600	1040
0035	B-1	MANNELL THOMAS	BOOT/SHOE SHOP	174	60			2	600	490	1060	570
0035	B-3	MARCHAL STEPHEN	CARRIAGE/WAGON SH	329	800			1	200	90	700	610
0034	B	MARTIN THOMAS	TINSMITH SHOP	304-T	1000			2	240	454	1200	746
0035	B-1	MARTIN CHRISTIAN	SADDLER SHOP	179-S	40			1	400	600	1000	400
0033	C-4	MARTIN GILL	TAILOR SHOP	242	37			1	100	200	300	100
0035	D-1	MARTIN JOHN	GRIST/OAT/SAW MIL	105/251	12000	WATER		5	1500	21940	25940	4000
0035	D-3	MARTIN ROBERT	TINSMITH SHOP	304-T	250			1	50	75	300	225
0034	G-1	MASON CHARLES	BLACKSMITH SHOP	896	100			1		120	300	180
0034	F-2	MATTHEWS WILLIAM	SADDLER SHOP	179-S	2000			3	1000	1500	4000	2500
0035	A-1	MAXWELL HUGH	TAILOR SHOP	242	100			2	25	250	300	50

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0035	A-1	MAXWELL JAMES	BOOT/SHOE SHOP	174	100			3	400	500	2000	1500
0035	A-1	MAXWELL WM HENRY	TANNERY	172	700			1	50	600	1200	600
0034	I	MAY JAMES	SADDLER SHOP	179-S				2	300	800	2000	1200
0033	C-4	MAYS JAMES	WIRE WEAVING SHOP	305	300			1	300	440	1221	781
0035	E	MCADAM & MCLEAN	PRINTING OFFICE	289	2000			4	1400	1000	5000	4000
0035	C-1	MCBRIDE JAMES	BLACKSMITH SHOP	896	150			2	200	400	1000	600
0035	A-3	MCBRIDE MOSES	WAGON FACTORY	329	100			2	104	60	670	610
0035	B-4	MCBURNY JAMES	WEAVER	182-W	50			2	300	450	750	300
0033	B-1	MCCAIN GEORGE	BLACKSMITH FORGE	309/311	250			1	200	200	400	200
0035	C-3	MCCALLUM AGNES	MILLINERY	249-M/244	20			1	150	240	400	160
0035	C-3	MCCAULEY WILLIAM	WEAVER	182-W				1	100	390	500	110
0035	C-1	MCCAWLY ANDREW	WEAVER	182-W	50			2	75	250	510	260
0035	B-2	MCDOLGAN WM JOHN	WEAVER SHOP	182-W	30			1	150	700	850	150
0035	C-2	MCDONAGH JAMES	SAW MILL	251		WATER		2	160	105	320	215
0034	E-3	MCDONALD JOHN	BLACKSMITH SHOP	896	500			2	200	450	310	140
0035	C-3	MCDONALD GEORGE	GRIST MILL	105	5000	STEAM	35	3	970	9100	10070	970
0034	G-1	MCDONALD JAMES	COOPER SHOP	259-C	200			1		60	400	340
0035	F	MCDONALD JOHN	COOPER	259-C	30			1	15	9	24	15
0035	C-2	MCEACHEREN JOHN D	SHINGLE FACTORY	251-S	2000	STEAM	5	5	500	600	1800	1200
0035	C-2	MCEACHEREN JOHN D	CARDING FACTORY	189-W	500	STEAM	5	1	300	2000	2500	500
0033	C-3	MCGAR JOSEPH	ROPE WALK	184	50			2	50	300	700	400
0034	F-2	MCGINNIS PATRICK	WOOLEN FACTORY	182	500	WATER	8	3	450	300	2300	2000
0035	B-2	MCGNINCH HUGH	WEAVER	182-W	40			1	24	500	700	200
0034	G-1	MCGREGOR WILLIAM	BLACKSMITH SHOP	896	800			1	360	500	1800	1300
0035	D-1	MCKEON ROBERT	SAW MILL	251				2	72			
0033	A-3	MCINTOSH JAMES	TAILOR SHOP	242	50			1	200	100	500	400
0033	A-3	MCKENZIE ALLAN	BLACKSMITH/WAGONS	329	676			4	1728	900	1700	800
0034	F-3	MCKENZIE	BLACKSMITH FORGE	896	150			1	225		1300	
0035	D-2	MCKENZIE DUNCAN	SAW MILL	251	800	STEAM	25	2	200	1000	1400	400
0035	A-3	MCKENZIE KENNETH	CARRIAGEMAKER	329	400			2	300	232	900	668
0034	I	MCKEOWN ROBERT	SHOEMAKER SHOP	174				4	1600	2500	5000	2500
0035	A-3	MCKERLIE DAVID	SAW MILL	251		WATER	15	2	100	1000	1190	190
0035	C-1	MCKILLIP ARCHY	SAW MILL	251	2000	STEAM	30	3	300	1500	3500	2000
0034	I	MCKITTRICK & BRO	IRON FOUNDRY	294/311	5000	STEAM	12	7	2200	1320	9000	7680
0035	B-1	MCCLACHLAN HUGH	TAILOR SHOP	243	400			2	400	700	1000	300
0034	F-2	MCLEAN ANGUS	WEAVER SHOP	182-W	40			0			180	
0034	D	MCLEAN DUGALD	CARPENTER SHOP	254	30			3	500	560	2200	1640
0033	C-2	MCLEAN GEORGE	OATMEAL MILL	105-O	6000	WATER		6	800	41200	51250	10050
0035	C-2	MCLEAN JOHN	PLANING FACTORY	251	700	STEAM	10	1	200	2500	3250	750
0033	A-3	MCLEAN GEORGE	GRIST MILL	105	16000	W/S	4	5	1100	6000	11000	5000
0035	A-2	MCLEARY WILLIAM H	WAGON SHOP	329	300	HORSE	1	1	300	100	630	530
0035	A-2	MCLEARY WILLIAM H	BLACKSMITH FORGE	896	700			1	500	120	620	500
0034	E-1	MCLEOD JOHN	CLOTHES FACTORY	243	1200			4	500	1560	2900	1340
0033	C-1	MCLEOD & WOOD & C	ORGAN/MELODEON PC	399-P	2300			27	15300	3850	46800	42950
0033	A-3	MCLEOD ROBERT	SHOEMAKER SHOP	174	40			2	500	700	1100	400
0034	D	MCMAHON BERNARD	STAVE FCY/COOPERA	259-C	3000	STEAM	20	16	5000	5000	16000	11000
0034	F-2	MCMILLAN DONALD	BLACKSMITH/PLOUGH	311/329	5000	STEAM	10	10	3000	2130	10325	8195
0034	F-2	MCMILLAN J & D	SAW MILL	251	2000	WATER	40	4	800	2400	5100	2700
0033	C-3	MCMILLAN J A	BOOT/SHOE FACTORY	174	200			5	1040	750	1248	498
0035	E	MCMILLAN NEIL	TAILOR	242	1000			3	100	800	1200	400
0035	A-2	MCMILLIN	TAILOR SHOP	243/245	50			1	200	200	400	200

WELLINGTON COUNTY: ALL FIRMS BY NAME OF PROPRIETOR, 1871

CCID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0034	E-1	MCURRY	CHARLES	358-L	100			2	200	260	550	290
0034	I	MCNEIL	PETER	CARPENTER/BUILDER	421-C	100		6	2000	6000	10000	4000
0033	C-3	MCNEIL	JOHN	BOOT/SHOE FACTORY	174	1500		15	3500	7500	13000	5500
0035	F	MCPHERSON	WILLIAM	SAW MILL	251	3000	STEAM	15	750	480	1000	520
0035	B-1	MCVAY	FRANCIS	BLACKSMITH	896	250		1	250	100	500	400
0034	F-2	MEDLEY	RICHARD	BOOT/SHOE SHOP	174	600		3	500	1900	2800	900
0034	I	MEEK	WILLIAM	COOPERAGE	259-C			1		100	800	700
0034	I	MENERY	R & D	CARRIAGE/WAGON SH	329	500		3		2000	4000	2000
0034	C-1	MENNIE	PETER	TANNERY	172	2500		2	700	2520	7000	4480
0034	F-3	MERCER	ROBERT	SAW MILL	251	900	WATER	2	276	2400	6000	3600
0033	C-4	METCALFE	HENRY	SADDLE/HARNESS SH	179-S	4000		5	1500	6000	12000	6000
0033	B-2	MICKLE	JOHN	SAW MILL	251	1000	WATER	10	200	500	1000	500
0034	F-2	MILLAY	HUGH	BLACKSMITH/WAGONS	311/896	12000	STEAM	16	2000	1600	4570	2970
0033	C-3	MILLS	W H & MELVI	IRON FOUNDRY	307-S/311			18	7000	7500	28000	20500
0034	D	MILNE	THOMAS	TAILOR SHOP	242			3	624	400	1900	1500
0035	B-1	MINES	ROBERT	TAILOR SHOP	242	175		2	400	730	1100	370
0034	D	MINNIE	JOHN	SHOE SHOP	174	300		1	400	450	850	400
0034	B	MITCHELL	ROBERT	SADDLER SHOP	179-S	500		3	500	2000	3000	1000
0033	C-3	MITCHELL	WILLIAM	TAILOR SHOP	242	200		11	1820	3900	5460	1560
0033	C-4	MITCHELL & TOVELL	CARPENTER/UNDERTA	258/254		1200		2	900	240	2500	2260
0035	A-3	MITCHELL	JAMES	POT ASHERY	378-P	200		3	180	65	300	235
0034	C-2	MODLAN	ISAAC	IRON FOUNDRY	311	8000	WATER	25	4000	4000	15000	11000
0033	A-1	MOFFAT	CHRISTOPHE	BLACKSMITH FORGE	896	200		2	275	80	500	420
0034	D	MOFFAT	J & A	CARPENTER/PLANING	421-C	1200	STEAM	9	2500	1500	1000	-500
0034	I	MONROE	FISHER	PRINTING/ADVERTIS	289	1000		3	800		1200	
0035	C-2	MONTGOMERY	ANDREW	BLACKSMITH FORGE	896	300		5	624	925	3000	2075
0035	C-2	MONTGOMERY	ANDREW	CARRIAGE FACTORY	329	100		4	636	200	1000	800
0034	D	MOORE	RICHARD	SHOE SHOP	174	400		6	2300	2500	15000	12500
0034	I	MOORE & SMITH	MILLINER/DRESSMAK	249-M/244		200		2		400	500	100
0035	A-3	MOORE	JAMES	TAILOR SHOP	243	100		1	120	140	260	120
0035	A-2	MORGAN	GEORGE	BLACKSMITH FORGE	896	200		1	100	50	112	62
0034	E-1	MORRIS	SAMUEL	CARRIAGE/WAGON SH	329	200		1	25	60	600	540
0034	G-1	MORRISON	JEREMIAH	BLACKSMITH SHOP	896	200		1		25	300	275
0033	A-3	MORRISON	R B & CO	TAILOR SHOP	243	100		4	700	500	3000	2500
0033	A-3	MORRISON	R B & CO	MILLINERY SHOP	249-M	50		1	160	1400	2000	600
0034	E-2	MORTON	JAMES	WEAVER	182-W	50		3	245	245	1000	755
0033	C-2	MOULTON	D	TANNERY/SHEEPSKIN	172	1000		3	762	4160	5150	990
0034	H-2	MUIR	FRANCIS	WEAVER	182-W	30		3				
0034	B	MUNDELL	JOHN	CABINET FACTORY	261	6000	WATER	16	3500	1075	7000	5925
0034	C-2	MUNRO	JOHN	BLACKSMITH SHOP	896	400		2	250	400	1500	1100
0034	E-1	MURPHY	THOMAS	CARPENTER SHOP	421-C	700		4	750	600	5150	4550
0033	C-2	MURRAY	GEORGE	WOOLEN MILL	182	2800	WATER	12	1000	3000	4940	1940
0034	D	MURRAY	WILLIAM	SHOE SHOP	174	100		1	500	700	1528	828
0033	C-3	MYERS	JOSEPH	CIGAR FACTORY	153			4	1000	1600	4290	2690
0033	C-4	NAISMITH	DANIEL	MEAT CURING	101-P	700		2	176	6000	6600	600
0034	E-1	NELAN	THOMAS	CARRIAGE/WAGON SH	329	100		1	100	60	220	160
0034	E-1	NELSON	JOHN	TAILOR SHOP	243	1500		3	150	700	1200	500
0035	B-4	NERGGY	JAMES	SAW MILL	251	800	WATER	20	150	300	625	325
0033	A-4	NEVILS	JOHN	SHOEMAKER	174	250		0	300	300	700	400
0033	A-4	NICHOL	GEORGE	BLACKSMITH FORGE	896	200		2	400	400	800	400
0034	I	NICHOLSON	ISAAC	CARRIAGES/BLACKSM	329	250		4	1500	2000	5000	3000

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0034	H-1	NICKLE ANDREW	SAW MILL	251	1300	WATER	.	3	450	.	.	.
0035	A-2	NOSTLEY CHARLES	TANNERY	172	7000	STEAM	8	4	1600	5000	8000	3000
0035	D-3	O'CALLAGHAN EDMUN	SAW MILL	251	3000	STEAM	25	4	450	2000	2100	100
0035	D-3	O'CALLAGHAN EDMUN	GRIST MILL	105	5000	WATER	25	1	400	.	300	.
0035	D-3	O'FIELD JAMES	SHINGLE/STAVE FCY	251-S	500	STEAM	12	8	500	300	1200	900
0033	C-1	OLDHAM THOMAS	KNITTING SHOP	239	500	STEAM	3	6	600	1500	2400	900
0034	F-2	OVERLAND CHARLES	CARPENTER SHOP	254	500	OTHER	.	1	50	150	430	280
0034	F-4	OVERLAND JOHN	TAILOR	242	35	.	.	0	.	180	240	60
0035	A-2	OWENS THOMAS	GRIST MILL	105	125	STEAM	12	1	100	8000	15000	7000
0035	A-2	OWENS THOMS	SAW MILL	251	100	STEAM	13	2	200	1000	1750	750
0035	B-1	PALMER WILLIAM	LIME KILN	358-L	10	.	.	3	200	25	225	200
0033	A-2	PANNABECKER SAMUE	BLACKSMITH SHOP	896	45	.	.	3	600	500	1400	900
0033	C-4	PARKER ABEL	BOOT/SHOE SHOP	174	400	STEAM	13	8	2000	4500	3000	280
0033	C-1	PARKER J & HARVEY	CARRIAGE/WAGON FC	329	2000	STEAM	13	3	900	7000	9000	4500
0034	E-1	PARKINSON THOMAS	TANNERY	172	200	STEAM	16	4	.	360	360	0
0034	I	PARSONS JOHN	CHEESE FACTORY	104	2500	WATER	16	9	2000	3500	3500	1500
0034	I	PARSONS JOHN	SAW MILL	251	500	.	.	6	1500	2000	5000	3000
0033	A-1	PASMORE WALTER	TINSMITH	304-T	500	STEAM	16	4	400	700	1860	1160
0035	A-2	PATMORE JOHN	SAW MILL	251	4000	STEAM	15	3	300	2000	3000	1000
0035	C-2	PATMORE BROS	CARRIAGE FACTORY	329	500	.	.	8	850	1750	4000	2250
0034	G-2	PATTERSON	WEAVER	182-W	30	.	.	0	.	150	240	90
0035	B-1	PEFFERS NEIL	CABINET SHOP	261	2000	.	.	2	750	320	1800	1480
0033	C-1	PENDER THOMAS	COOPER SHOP	259-C	100	.	.	2	400	35	300	265
0034	D	PHELAN JAMES	FANNING MILL FACT	311	600	.	.	4	600	4000	3300	-700
0034	B	PINK THOMAS	BAKERY	107	1000	.	.	2	556	3365	4750	1385
0033	B-2	PIPE JOHN	GRIST MILL	105	25000	WATER	60	15	5028	89000	90000	1000
0033	C-1	PIRIE A T	PRINTING/THE HERA	289	1000	.	.	2	600	400	1400	1000
0035	A-2	PLANT JEREMIAH	COOPER SHOP	259-C	20	.	.	1	25	75	100	25
0033	A-3	POACK & KITTS ?	BLACKSMITH FORGE	896	40	.	.	2	480	100	650	550
0034	B	POTTER D M	FOUNDRY/MACHINE S	311	20000	WATER	50	30	8320	4700	30000	25300
0034	B	POTTER D M	PLANING M/SASH FC	254	2500	WATER	16	5	2340	2200	6000	3800
0035	B-2	POTTER HENRY	PLOUGH/HARROW SHO	311	.	.	.	1	20	15	35	20
0033	C-1	PRESANT JAMES	GRIST MILL	105	5000	WATER	25	3	170	12800	10880	-1920
0035	A-1	PRESTON ALEXANDER	CARRIAGE SHOP	658	500	.	.	1	75	20	100	80
0035	C-2	PRESTON GEORGE &	SAW MILL	251	6000	STEAM	40	4	1000	2500	5000	2500
0035	C-2	PURDIE THOMAS	COOPER	259-C	50	.	.	1	52	40	110	70
0035	A-3	QUICK JOHN	BLACKSMITH SHOP	329-P/311	300	.	.	2	500	180	921	741
0035	B-2	QUINN THOMAS	WEAVER	182-W	100	.	.	1	30	600	800	200
0033	C-3	RAYMOND CHARLES	SEWING MACHINE FC	315-S	25000	STEAM	15	70	30000	42000	85000	43000
0034	D	RAYMORE DOMINIC	TIN SHOP	304-T	600	.	.	2	800	1000	3000	2000
0034	F-3	REAVY ARCHIBA	TAILOR SHOP	243	.	.	.	2	.	1000	1550	550
0034	F-4	REED ELIZA	WEAVER	182-W	35	.	.	1	.	83	120	37
0034	F-4	REED WILLIAM	CARPENTER SHOP	259	200	.	.	1	.	.	200	.
0034	H-2	REED JAMES	WEAVER	182-W	60	.	.	2	.	.	420	.
0035	D-2	REID JOSEPH	CARRIAGE FACTORY	329	1000	.	.	5	340	150	600	450
0035	C-1	REILLY LAWRENCE	WEAVER	182-W	40	.	.	1	100	195	312	117
0033	C-3	RENTON GEORGE	BLACKSMITH SHOP	896	150	.	.	1	150	50	200	150
0035	C-3	REYNOLDS WILLIAM	POT ASHERY	378-P	70	.	.	1	40	30	135	105
0035	A-2	RICHARDS WILLIAM	POT ASHERY	378-P	500	.	.	1	150	160	600	440
0034	D	RICHARDSON THOMAS	WAGONS/BLACKSMITH	329/311	800	.	.	4	700	1000	2000	1000

WELLINGTON COUNTY: ALL FIRMS BY NAME OF PROPRIETOR, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0034	C-2	ROBERTS WILLIAM	BAKERY	107	1400		.	3	458	4200	5200	1000
0033	C-4	ROBERTSON A & SON	FOUNDRY/MACHINE S	315-E/301	10000	STEAM	15	13	2900	2000	10000	8000
0033	C-2	ROBERTSON ROBERT	GRIST MILL	. 105	3000	W/S	45	3	850	17000	22000	5000
0034	D	ROBERTSON WILLIAM	FLOUR/OATMEAL MIL	105/105-O	40000	WATER	140	10	4000	70000	85000	15000
0035	C-2	ROBINSON THOMAS	GRIST MILL	105	.	STEAM	6	2	500	8000	12000	4000
0035	C-2	ROBINSON THOMAS	SAW MILL	251	.	STEAM	6	2	500	3000	4000	1000
0034	G-1	ROBINSON & CASSID	SAW MILL	251	4000	STEAM	20	6	1200	2000	6000	4000
0034	G-2	ROBINSON GEORGE	SAW MILL	251	2000	WATER	15	4	500	500	2400	1900
0035	C-3	ROBINSON JOSEPH B	SADDLERY	179-S	600		.	2	150	1000	1600	600
0034	G-1	RODGER WILLIAM	BLACKSMITH SHOP	896	1000		.	2	200	50	900	850
0034	I	ROFFE T H	BAKERY/CONFECTION	107	250		.	2	100	1040	1352	312
0034	I	ROLLARD JOHN	BAKERY/BISCUIT FC	107	600		.	2	1000	1000	2000	1000
0034	D	ROOS JOHN	WEAVER	182-W	100		.	1	200	200	400	200
0035	C-3	ROSE JAMES	SHOE SHOP	174	100		.	1	200	400	900	500
0034	B	ROSS J M	FLOUR MILL	105	16000	WATER	50	3	1340	18000	21000	3000
0035	A-3	ROSSBOROUGH WILLI	WEAVER	182-W	20		.	1	60	49	78	29
0034	F-3	ROTT HENRY	JOINER	254	300	HORSE	1	1	.	40	50	10
0034	F-3	ROWAN JOHN	WEAVER	182-W	30		.	1	.	165	550	385
0033	C-3	RYAN PATRICK	POTASH FACTORY	378-P	100		.	5	732	1500	4500	3000
0035	E	RYAN JAMES & THOM	WAGON SHOP	329	3000		.	5	400	1000	3000	2000
0033	C-1	SALE JOHN	CONFECTIONERY/BAK	108-C/107	5000		.	3	1118	1800	7000	5200
0033	C-2	SALLOWS WILLIAM	BLACKSMITH FORGE	309	500		.	3	450	500	1900	1400
0034	A-1	SCHAFER VALENTIN	SAW MILL	251	700	WATER	35	2	24	640	600	-40
0034	A-3	SCHERMAN GEORGE	COOPER SHOP	259-C	100		.	3	500	160	1500	1340
0033	A-3	SCHLEGEL LAWRENCE	WEAVER SHOP	182-W	40		.	1	200	.	500	.
0033	A-3	SCOTT JOHN	HARNESSMAKER	179-S	100		.	2	400	1800	2500	700
0035	C-2	SCOTT SARAH	WEAVER	182-W	20		.	1	55	245	300	55
0035	C-2	SCOTT WILLIAM	WEAVER	182-W	40		.	1	17	68	80	12
0033	B-2	SHAW C & A	PORK PACKING HOUS	101-P	3000		.	10	250	70000	75000	5000
0033	C-4	SHEPHERD MARY	CLOTHING	242	150		.	33	2000	12000	14000	2000
0034	B	SHERATT ARCHIBAL	WATCHMAKER SHOP	695	1500		.	1	284	.	650	.
0035	G	SHIBLEY ABSALOM	BLACKSMITH FORGE	896	700		.	1	.	200	400	200
0034	E-1	SHULTIS DAVID	SAW MILL	251	1000	WATER	20	2	300	500	2000	1500
0034	B	SIMON & GERRARD	POTASH FACTORY	378-P	550		.	2	200	552	1518	966
0033	C-3	SIMPSON ALLAN	WAGON SHOP	329	200		.	1	471	850	2000	1150
0034	F-3	SINCLAIR ALEXAND	BLACKSMITH SHOP	896	400		.	2	.	28	115	87
0033	A-3	SLATER DANIEL	CARPENTER SHOP	261/254	150		.	1	.	100	400	300
0033	A-3	SLATER DANIEL	BLACKSMITH FORGE	896	60		.	1	300	30	400	370
0033	B-1	SLEMAN GEORGE	BREWERY	109-B	20000	STEAM	8	9	3300	12500	22000	9500
0033	B-2	SLEMAN GEORGE	BLACKSMITH SHOP	109-B	20000	STEAM	8	9	3600	13600	22000	8400
0035	G	SLOAN HENRY	BLACKSMITH SHOP	896	50		.	1	150	150	400	250
0035	B-1	SMALL & MITCHELL	CARRIAGE FACTORY	329/315-P	700	HORSE	8	6	1600	500	3000	2500
0035	B-1	SMALL SAMUEL	BOOT/SHOE SHOP	174	100		.	2	400	800	400	400
0034	B	SMART ALEX	POTASH FACTORY	378-P	1000		.	3	600	1200	3200	2000
0034	F-1	SMITH JACOB	LIME KILN	358-L	50		.	2	.	.	66	.
0034	F-2	SMITH JAMES	HARNESS SHOP	179-S	600		.	1	364	800	1500	700
0034	B	SMITH JOHN	PRINTING OFFICE	286	2500		.	5	1000	650	3000	2350
0033	C-3	SMITH WILLIAM	WAGONS/BLACKSMITH	329/896	400		.	3	550	600	2500	1900
0034	D	SMITH WILLIAM	CARPENTER/BUILDER	421-C	2000		.	7	1600	1125	3300	2175
0034	F-3	SMITH WILLIAM	WEAVER	182-W	10		.	1	10	53	240	187
0035	B-2	SMITH ALFRED	COOPER SHOP	259-C	75		.	1	160	100	600	500

WELLINGTON COUNTY: ALL FIRMS BY NAME OF PROPRIETOR, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0034	G-1	SMITH HENRY	GRIST MILL	105	9000	WATER	40	6	2200	39500	46681	7181
0035	B-2	SMITH SYDNEY	BLACKSMITH FORGE	896	200		.	2	75	400	1000	600
0034	H-2	SMITH THEODORE	BLACKSMITH SHOP	896	300		.	1		150	650	500
0035	C-1	SMITH WILLIAM	WEAVER	182-W	50		.	2	150	242	420	178
0035	A-1	SNIDER GEORGE W	SAW MILL	251	4000	STEAM	16	3	470	400	1050	650
0035	A-1	SNIDER GEORGE W	SHINGLE FACTORY	251-S	300		.	3	300	50	600	550
0034	B	SOMERS J G	MERCHANT TAILOR	242	1000		.	3	600	2800	4000	1200
0033	C-2	SPRAGGE PHILIP	PUMP FACTORY	315-P	250		.	2	300	1200	1125	75
0035	C-2	STAGGERS JOHN	COOPER	259-C	50		.	1	75	25	100	75
0034	B	STEELE G & J	CARRIAGE SHOP	329	700		.	3	925	693	3460	2767
0033	B-2	STEELE JOHN	BLACKSMITH SHOP	896	200		.	1	200	40	500	460
0034	I	STEPHENSON JOHN	CARDING/FULLING	F 189-W	2500	W/S	6	2	600	200	1000	800
0035	D-3	STEPHENSON ROBERT	CABINET SHOP	261	300		.	1	150	141	700	559
0033	C-3	STEWART ROBERT	PLANING/SASH/DOOR	254	12000	STEAM	20	20	6500	10000	35000	25000
0033	C-4	STEWART WILLIAM	CLOTHING	242			.	6	1500	4000	7000	3000
0034	G-2	STEWART JOHN	LIME KILN	358-L	75		.	1	50	56	180	124
0033	A-3	STIEN JOHN	COOPER SHOP	259-C	30		.	1	100	25	350	325
0034	E-1	STOULT ELI	TIN SHOP	304-T	800		.	1		120	1000	880
0033	C-4	STOVELL EDWARD	PUMP FACTORY	315-P	150		.	1	150	25	250	225
0035	E	STOVELL H H	PRINTING OFFICE	289	2000		.	5	1400	1000	5000	4000
0034	G-1	STRACHAN ROBERT	CARPENTER SHOP	254	500		.	1	400	200	800	600
0034	H-2	STRINGER WILLIAM	BLACKSMITH FORGE	896	150		.	1		70	400	330
0034	D	STUART ALEXAND	SHOE SHOP	174	150		.	2	700	1500	2500	1000
0033	C-1	SUNLEY WILLIAM	TINWARE SHOP	304-T	2000		.	6	2000	2000	5000	3000
0035	B-1	SUTHERLAND WILLIA	GRIST MILL	105	7000	WATER	40	3	800	18000	21000	3000
0035	E	SWANN THOMAS	WAGON SHOP	329	10000	STEAM	12	15	3500	4000	6000	2000
0033	A-3	SWARTZENBURGER C	SHOEMAKER SHOP	174	35		.	1	200	350	700	350
0035	B-1	TANNER JOHN	TANNERY	172	1200	STEAM	4	3	850	1850	2780	930
0034	D	TAYLOR ALEXAND	TAILOR SHOP	242	120		.	6	920	2785	4724	1939
0035	C-3	TAYLOR & WHYTE	BLACKSMITH	329/896	400		.	1	300	600	1310	710
0035	A-3	TAYLOR WILLIAM	SADDLER SHOP	179-S	400		.	1	160	254	900	646
0034	F-3	TAYWELL GEORGE	CARPENTER SHOP	259	200		.	1		30	200	170
0034	D	TEMPLIN JOHN	BLACKSMITH SHOP	311	250		.	2	600	350	1800	1450
0034	C-1	TENNANT DAVID	LIME KILN	358-L	100		.	1	84	25	275	250
0033	C-4	THAINE CHARLES	AGRC IMPLEMENT FC	311	500		.	3	800	552	1777	1225
0035	C-1	THOM ADAM	SADDLER	179-S	300		.	1	200	500	800	300
0035	F	THOMAS A W GORDON	SAW MILL	251	3500	STEAM	30	5	1800	3509	8700	5191
0034	F-2	THOMPSON ARCHIBA	BOOT/SHOE SHOP	174	700		.	5	1000	1170	2300	1130
0034	B	THOMPSON GEORGE	BOOT/SHOE FACTORY	174	4000		.	6	1872	2000	4600	2600
0034	D	THOMPSON JOHN	CARPENTER SHOP	421-C	200		.	3	1080	860	2600	1740
0033	C-4	THORNTON JAMES B	BOOK BINDERY	287-B	1050		.	7	1250	2556	4558	2002
0034	H-2	TIBBIT JOHN	TURNER SHOP	315-H	100	HORSE	1	1			400	
0034	I	TILT JOHN	SHOEMAKER SHOP	174			.	3	800	4000	6400	2400
0033	C-3	TINDALL JAMES	SHOEMAKER SHOP	174	30		.	2	832	1500	1850	350
0035	F	TODD ALEXANDER	SHOEMAKER	174	100		.	2	500	600	1200	600
0035	B-1	TOOL PETER	BLACKSMITH SHOP	896	300		.	1	250	150	500	350
0034	E-2	TORRANCE WILLIAM	BLACKSMITH SHOP	896	400		.	3	250	300	500	200
0033	C-3	TOVEL JOSEPH	SADDLER SHOP	179-S	150		.	2	600	1400	2000	600
0035	C-2	TROTTER JOHN	WATCHMAKER SHOP	392	40		.	1	300	100	400	300
0034	G-2	TROUTEN IRWIN	WEAVER	182-W	40		.	1		100	-240	140
0034	G-2	TROUTEN WILLIAM	WEAVER	182-W	40		.	1		100	180	80

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUNRAWC	SUMPROC	VADD
0034	E-1	TURNER	JOHN	896	500			1	120	500	1000	500
0034	D	VALLERY	FRANK	174	170			1	500	300	1400	1100
0034	H-2	VANATTER	WILLIAM	896	200			1		150	500	500
0034	C-2	VANCE	EDWARD	174	1000			2	320	200	700	500
0035	C-2	VICH	MRS	244	40			4	212	4680	4892	212
0034	B	VINING	J C &	109-B	1200			2	500	1150	3600	2450
0035	A-2	WADE	ABRAHAM	896	400			1	250	120	550	430
0035	B-2	WADE	THOMAS	174				1	200	400	700	300
0035	B-3	WAIRD	WILLIAM	896	700			1	60	80	150	70
0034	F-2	WALKER	JOHN S	294/896	3000	STEAM	5	5	1200	1865	4600	4360
0034	F-2	WALKER	WILLIAM	896	300			1	150	1063	1500	437
0035	C-3	WALTON	KENNETH M	311/329	3000	STEAM	10	5	700	600	1850	-550
0035	C-3	WALTON	KENNETH M	329	600			1	200	225	1050	825
0035	C-1	WARD	GEORGE M	896	20			2	400	100	600	500
0035	B-1	WARD	WILLIAM	329	400	HORSE	2	1	300	70	370	300
0034	F-4	WARDEN	JEREMIA	259	75			1		30	150	120
0034	F-3	WATSON	SUSAN	182-W	40			1		100	160	60
0034	D	WATSON	THOMAS	172	6000	STEAM	14	4	1250	4000	7250	3250
0034	F-4	WATSON	WILLIAM	182-W	20			1		177	585	408
0035	C-2	WATSON	WILLIAM	893	150			1	300	150	600	450
0033	B-1	WATSON	ALFRED	896	800			2	200	400	800	400
0035	C-2	WATSON	FLORA	249-M/244	50			3	100	1000	1250	250
0034	C-2	WATSON	L W	172	1500			2	144	4000	5000	1000
0035	A-3	WATTS	ALEX & ROBE	251/251-S	4000	STEAM	25	6	1200	1900	4200	2300
0035	A-3	WATTS	ALEX & ROBE	105	2000	STEAM	25	3	600	4320	5720	1400
0033	C-4	WEBBER	GEORGE	259-C	300			8	3120	1200	5250	4050
0034	D	WEBSTER	HENRY	304-T	375			4	600	1270	2400	1130
0033	C-3	WEBSTER	JOHN	304-T	300			2	500	600	1000	400
0034	B	WEBSTER	SAMUEL	304-T	500			1	100	455	860	405
0033	C-1	WELCH	WILLIAM	243	200			4	200	500	700	200
0035	C-2	WELTE	SILAS	261	2000	STEAM	15	6	1000	360	2050	1690
0034	I	WEST	JOHN	107	200			3	600	3120	5000	1880
0034	F-4	WESTOVER	JACOB	174	150			3	400	1200	3300	2100
0034	I	WHALEY	ERIC	358-L	15			2			105	
0034	I	WHALEY	ISAAC	182-W	30			2		300	600	300
0034	E-3	WHITE	JAMES	896	1000			2	200	100	800	700
0035	A-2	WHITE	JAMES	251	500	WATER	12	1	80	100	225	125
0034	C-2	WHITELY	FRANCIS	896	400			3	150	80	200	120
0034	B	WHITLAW & GAY		259-C	600			8	2000	3750	8000	4250
0034	C-2	WHITLAW & GAY		105	7000	WATER	40	7	2473	108000	115000	7000
0033	C-1	WILKINSON	JONATHA	289	6000			5	1200	1500	4000	2500
0034	E-3	WILLIAMS	GEORGE	315-P	300			1	213	16	240	224
0034	E-1	WILLIAMS	JOHN	174	300			2	350	600	1100	500
0035	B-2	WILLIAMS	HUGH	329	300			1	160	150	1000	850
0034	F-2	WILLIS	JOHN	107	100			1	312	1106	2766	1660
0034	D	WILSON	JAMES	105/105-O	19000	WATER	100	8	4400	115000	121000	6000
0034	D	WILSON	JAMES	182	14000	WATER	40	10	5300	8400	14000	5600
0034	D	WILSON	JAMES	251	4500	STEAM	25		2000	4000	8000	4000
0034	D	WILSON	JAMES	358-L	500			2	300	650	1500	850
0034	E-1	WILSON	PETER	182-W	100			2	75	750	2000	1250
0033	C-2	WILSON	ROBERT	259-C				1		30	100	70

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0033	C-3	WILSON	WILLIAM SHOEMAKER SHOP	174	200		.	2	184	1200	2000	800
0034	E-1	WILSON	WEAVER	182-W	40		.	1	.	700	1500	800
0035	A-2	WILSON HUGH	WAGON SHOP	329	80		.	1	120	40	400	360
0035	A-1	WILSON THOMAS	WEAVER SHOP	182-W	60		.	1	250	300	550	250
0035	C-1	WILSON WELLINGTON	BLACKSMITH SHOP	896	500		.	1	100	250	700	450
0034	C-2	WISSLER JANE	SAW MILL	251	1000	WATER	16	2	1000	2000	6000	4000
0034	C-2	WISSLER JANE	TANNERY	172	3000	WATER	10	6	1800	6500	9000	2500
0035	A-3	WOODS JOHN	WEAVER	182-W	40		.	2	180	660	950	290
0033	C-3	WORSWICK THOS	GUELPH MCHN TOOL	315-M	9000	STEAM	6	10	4500	4800	8000	3200
0034	F-3	WORTS GEORGE	GRIST/FLOUR MILL	105	10000	WATER	.	2	500	13500	14625	1125
0035	A-3	WRAY JAMES	WEAVER	182-W	20		.	1	20	73	120	47
0034	E-1	WRIGHT JOHN	BAKERY	107	200		.	1	50	1560	2028	468
0035	C-2	WRIGHT MALCOLM	WEAVER	182-W	18		.	1	37	113	150	37
0035	E	WYERS WILLIAM	BRICK YARD	351-B	1000	HORSE	1	5	750	150	1000	850
0035	C-1	WYNN MISS M	WEAVER	182-W	40		.	1	125	100	250	150
0035	E	YARLET H	CARPENTER SHOP	421-C	600		.	3	700	150	1300	1150
0035	E	YEOMANS DAVID	GRIST MILL	105	10000	WATER	30	2	600	24000	25000	1000
0035	E	YEOMANS DAVID	SAW MILL	251	4000	WATER	30	3	1000	2500	5000	2500
0035	E	YEOMANS DAVID	CARDING/FULLING M	189-W	4000	WATER	10	1	300	6000	7000	1000
0035	E	YEOMANS DAVID	LIME KILN	358-L	200		.	1	300	200	312	112
0035	B-2	YOUNGER ROBERT	BLACKSMITH FORGE	896	600		.	1	400	140	600	460
0034	C-2	ZIGLER CASPER	HARNES SHOP	179-S	400		.	2	200	1000	2000	1000
					=====			=====	=====	=====	=====	=====
					1396761			3615	3009	758353	2914223	4636048
												1707417

Appendix A-2: Businesses in 17 industry types listed by value of output

WELLINGTON COUNTY: FLOUR MILLS BY VALUE OF OUTPUT, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0034	B	FRASER	J & CO	FLOUR MILL/DISTIL	105/109-D	30000 WATER	70	9	3000	270000	300000	30000
0033	C-4	GOLDIE	JAMES	FLOUR MILL/COOPER	105/259-C	30000 WATER	160	38	15000	260000	275000	15000
0033	C-1	ALLAN	DAVID	FLOUR MILL	105	40000 WATER	70	16	6000	106000	129000	23000
0034	D	WILSON	JAMES	FLOUR/OATMEAL MIL	105/105-O	19000 WATER	100	8	4400	115000	121000	6000
0034	C-2	WHITLAW & GAY		GRIST MILL	105	7000 WATER	40	7	2473	108000	115000	7000
0033	B-2	PIPE JOHN		GRIST MILL	105	25000 WATER	60	15	5028	89000	90000	1000
0034	D	ROBERTSON	WILLIAM	FLOUR/OATMEAL MIL	105/105-O	40000 WATER	140	10	4000	70000	85000	15000
0034	C-2	EBY JACOB		GRIST MILL	105	12000 WATER	40	5	1500	60000	75000	15000
0033	C-2	MCLEAN	GEORGE	OATMEAL MILL	105-O	6000 WATER	40	6	800	41200	51250	10050
0034	E-1	HORTOP	HENRY	FLOUR MILL	105	6000 WATER	40	5	1800	45000	50000	5000
0034	G-1	SMITH HENRY		GRIST MILL	105	9000 WATER	40	6	2200	39500	46681	7181
0034	E-1	CLARK	DAVID	FLOUR MILL	105	10000 WATER	40	10	2500	31860	40460	8600
0033	B-1	ARMSTRONG	JOHN S	FLOUR MILL	105	15000 WATER	40	4	1200	40000	40000	0
0034	I	JULL	THOMAS	GRIST MILL	105	1500 STEAM	40	2	800	35000	40000	5000
0034	E-1	FARRISH	WILLIAM	FLOUR MILL	105	15000 WATER	40	5	1100	33000	37500	4500
0035	D-1	MARTIN JOHN		GRIST/OAT/SAW MIL	105/251	12000 WATER	40	5	1500	21940	25940	4000
0034	F-3	HEW & BRO		GRIST/FLOUR MILL	105	9000 WATER	30	3	550	20000	25000	5000
0035	E	YEOMANS	DAVID	GRIST MILL	105	10000 WATER	30	2	600	24000	25000	1000
0033	C-2	ROBERTSON	ROBERT	GRIST MILL	105	3000 W/S	45	3	850	17000	22000	5000
0034	B	ROSS	J M	FLOUR MILL	105	16000 WATER	50	3	1340	18000	21000	3000
0035	B-1	SUTHERLAND	WILLIAM	GRIST MILL	105	7000 WATER	40	3	800	18000	21000	3000
0034	F-2	DODD	THOMAS	GRIST/OATMEAL MIL	105/105-O	500 WATER	30	1	240	18480	18600	120
0034	E-1	FARRISH	WILLIAM	OATMEAL MILL	105	6000 WATER	15	4	700	14000	16000	2000
0035	A-2	OWENS	THOMAS	GRIST MILL	105	125 STEAM	12	1	100	8000	15000	7000
0034	F-3	WORTS	GEORGE	GRIST/FLOUR MILL	105	10000 WATER	40	2	500	13500	14625	1125
0035	A-2	GRAY MATTHEW		FLOUR MILL	105	10000 WATER	40	1	450	10400	12000	1600
0035	C-2	ROBINSON	THOMAS	GRIST MILL	105	STEAM	6	2	500	8000	12000	4000
0033	A-3	MCLEAN	GEORGE	GRIST MILL	105	16000 W/S	4	5	1100	6000	11000	5000
0033	C-1	PRESANT	JAMES	GRIST MILL	105	5000 WATER	25	3	170	12800	10880	970
0035	C-3	MCDONALD	GEORGE	GRIST MILL	105	5000 STEAM	35	3	970	9100	10070	920
0033	C-2	FERGUSON	ALEXAND	GRIST MILL	105	1600 W/S	28	1	250	13500	9397	-4103
0035	D-3	HATHAWAY	JOHN	GRIST MILL	105	3500 STEAM	20	2	450	4800	6000	1200
0035	A-3	WATTS ALEX & ROBE		GRIST MILL	105	2000 STEAM	25	3	600	4320	5720	1400
0034	E-1	HORTOP	HENRY	OATMEAL MILL	105-O	2000 WATER	10	2	364	4500	5200	700
0035	A-3	GUBB WM		GRIST MILL	105	2000 STEAM	40	2	60	3274	3601	327
0034	E-2	EVERTS	RUFUS	FLOUR MILL	105	8000 WATER	32	4	800	1150	2000	850
0035	B-3	GREEN & LOWS		GRIST MILL	105	4000 STEAM	25	2	60	140	2000	1860
0035	D-3	O'CALLAGHAN	EDMUN	GRIST MILL	105	5000 WATER	25	1	400	300	300	.
0035	G	JOHNSTON JOHN		GRIST/SAW MILL	105/251	5000 WATER	30	2	700	.	.	.
=====										398225	1594464	195460
=====										1447	206	65855
=====										1790224	1790224	195460

WELLINGTON COUNTY: BEVERAGE MANUFACTURERS BY OUTPUT, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0033	C-1	ALLAN	DAVID	DISTILLERY	109-D	35000 STEAM	40	10	5000	130110	170939	40829
0033	B-1	SLEEMAN	GEORGE	BREWERY	109-B	20000 STEAM	8	9	3300	12500	22000	9500
0033	B-2	SLEEMAN	GEORGE	BREWERY/MALT HOUS	109-B	20000 STEAM	8	9	3600	13600	24000	22000
0033	C-2	HALLIDAY	THOMAS	BREWERY	109-B	6000 WATER	6	6	1900	8400	18900	10500
0034	D	HOLLAND & CO		BREWERY	109-B	5000 STEAM	5	4	1240	3800	6000	2200
0034	B	VINING	J C &	BREWERY	109-B	1200	.	2	500	1150	3600	2450
=====										15540	24249	73479
=====										169560	24249	73479

WELLINGTON COUNTY: TANNERIES BY OUTPUT, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0034	D	JOHNSTON & BROS	TANNERY	172	10000	STEAM	20	5	2000	30000	50000	20000
0034	G-1	KING PETER	TANNERY	172	8000	STEAM	15	7	3000	12000	22000	10000
0034	B	DALBY R & J	TANNERY	172	4000	STEAM	8	3	1000	6835	10000	3165
0034	I	CAMPBELL WM & SO	TANNERY	172	3000	STEAM	24	8	2600	5000	10000	5000
0033	C-1	PARKER J & HARVEY	TANNERY	172	2000	STEAM	13	3	900	4500	9000	4500
0034	C-2	WISSLER JANE	TANNERY	172	3000	WATER	10	6	1800	6500	9000	2500
0035	A-2	NOSTLEY CHARLES	TANNERY	172	7000	STEAM	8	4	1600	5000	8000	3000
0034	D	WATSON THOMAS	TANNERY	172	6000	STEAM	14	4	1250	4000	7250	3250
0034	C-1	MENNIE PETER	TANNERY	172	2500	STEAM	2	2	700	2520	7000	4480
0034	F-3	GAUD WILLIAM	TANNERY	172	1000	STEAM	12	5	1200	2900	5800	2900
0033	C-2	MOULTON D	TANNERY/SHEEPSKIN	172	3000	STEAM	12	3	762	4160	5150	990
0034	C-2	WATSON L W	TANNERY	172	1500		2	2	144	4000	5000	1000
0035	A-2	BROWN LOUIS	TANNERY	172	1000	HORSE	1	1	60	1000	3000	2000
0035	D-3	HOLLINGER JOHN F	TANNERY	172	2000	HORSE	1	4	600	1000	3000	1500
0035	C-3	BECK FREDERICK	TANNERY	172	1000	HORSE	1	1	300	1600	2800	1200
0035	B-1	TANNER JOHN	TANNERY	172	1200	STEAM	4	3	850	1850	2780	930
0035	B-2	CROZIER JOHN	TANNERY	172	600	HORSE	1	1	400	1100	2000	900
0034	F-2	FOSTER SALEM	TANNERY	172	1000		2	2	600	1000	1850	850
0035	A-1	MAXWELL WM HENRY	TANNERY	172	700		1	1	50	600	1200	600
					=====				=====	=====	=====	=====
					58500		132	65	19816	96065	164830	68765

WELLINGTON COUNTY: SADDLERS BY OUTPUT, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0033	C-4	METCALFE	SADDLE/HARNESS	SH 179-S	4000		5	5	1500	6000	12000	6000
0034	D	GERRIE	SADDLE/HARNESS	SH 179-S	100		5	5	1600	3800	6400	2600
0034	I	JACKSON	SADDLE/HARNESS	SH 179-S	2000		3	7	1200	2600	5000	2400
0034	F-2	MATTHEWS	SADDLER SHOP	179-S	1600		7	3	1000	1500	4000	2500
0033	C-4	HEATHER	SADDLE/HARNESS	SH 179-S	2000		3	3	600	2000	3500	1500
0034	I	GRAHAM & MOORE	SADDLER/HARNESS	S 179-S	2000		5	5	1500	2000	3000	1000
0033	C-1	BEATY	SADDLE/HARNESS	SH 179-S	500		3	3	500	2000	3000	1000
0034	B	MITCHELL	SADDLER SHOP	179-S	100		2	2	400	1800	2500	700
0033	A-3	SCOTT JOHN	HARNESSMAKER	179-S	2000		2	2	230	700	2500	1800
0034	B	GORDON	SADDLE/HARNESS	SH 179-S	100		2	2	750	1500	2500	1000
0034	D	KELLY	HARNESS SHOP	179-S	100		2	2	350	1600	2300	700
0035	C-2	BAILEY	HARNESS/SADDLE	SH 179-S	100		2	2	600	820	2060	1240
0034	E-1	KNOWLES	HARNESS SHOP	179-S	1000		2	2	600	1400	2000	600
0033	C-3	TOVEL	SADDLER SHOP	179-S	150		2	2	200	1000	2000	1000
0034	C-2	ZIGLER CASPER	HARNESS SHOP	179-S	400		2	2	300	800	2000	1200
0034	I	MAY	SADDLER SHOP	179-S	600		2	2	300	1000	1600	600
0035	C-3	ROBINSON JOSEPH B	SADDLERY	179-S	600		2	2	364	800	1500	700
0034	F-2	SMITH	HARNESS SHOP	179-S	300		3	3	200	500	1500	1000
0035	D-3	FRASER JOHN	HARNESS SHOP	179-S	40		1	1	400	600	1000	400
0035	B-1	MARTIN CHRISTIAN	SADDLER SHOP	179-S	400		1	1	160	254	900	646
0035	A-3	TAYLOR WILLIAM	SADDLER SHOP	179-S	300		1	1	200	500	800	300
0035	C-1	THOM ADAM	SADDLER	179-S	200		1	1	400	500	625	125
0033	C-1	BURGESS	HARNESS SHOP	179-S	200		1	1	400	500	625	125
					=====				=====	=====	=====	=====
					16490		0	64	13504	33674	66185	29011

WELLINGTON COUNTY: BOOT/SOUE MAKERS BY VALUE OF OUTPUT, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0033	C-4	HEPBURN	JOHN & SHOE/BOOT	174	900		.	29	7800	8000	20000	12000
0034	D	MOORE	RICHARD SHOE SHOP	174	400		.	6	2300	2500	15000	12500
0033	C-3	MCNEIL	JOHN BOOT/SOUE	174	1500		.	15	3500	7500	13000	5500
0034	I	CAMPBELL	WM & SO SHOE FACTORY	174	300		.	6	2800	4000	10000	6000
0034	I	TILT	JOHN SHOEMAKER SHOP	174	.		.	3	800	4000	6400	2400
0034	I	MCKEOWN	ROBERT SHOEMAKER SHOP	174	.		.	4	1600	2500	5000	2500
0034	B	THOMPSON	GEORGE BOOT/SOUE FACTORY	174	4000		.	6	1872	2000	4600	2600
0034	I	ANDERSON	JOHN SHOE SHOP	174	250		.	5	1500	1500	4000	2500
0034	B	KERR	WILLIAM BOOT/SOUE	174	3500		.	2	600	1250	3500	2250
0034	F-4	WESTOVER	JACOB SHOE SHOP	174	150		.	3	400	1200	3300	2100
0034	D	FORBES	ALEXAND BOOT/SOUE	174	2000		.	4	800	1500	3000	1500
0034	F-2	MEDLEY	RICHARD BOOT/SOUE	174	600		.	3	500	1900	2800	900
0034	D	STUART	ALEXAND SHOE SHOP	174	150		.	2	700	1500	2500	1000
0034	F-2	THOMPSON	ARCHIBA BOOT/SOUE	174	700		.	5	1000	1170	2300	1130
0033	A-3	BONSER & MCNAIR	SHOEMAKER SHOP	174	100		.	2	700	1000	2000	1000
0033	C-3	WILSON	WILLIAM SHOEMAKER SHOP	174	200		.	2	184	1200	2000	800
0035	A-1	MAXWELL JAMES	BOOT/SOUE SHOP	174	100		.	3	400	500	2000	1500
0035	C-2	DOUGLAS SAMUEL M	BOOT/SOUE SHOP	174	150		.	2	600	800	2000	1200
0033	C-3	TINDALL	JAMES SHOEMAKER SHOP	174	30		.	2	832	1500	1850	350
0034	B	LANDE	HENRY SHOE SHOP	174	500		.	2	550	525	1800	1275
0035	C-3	GRANT FREDERICK W	SHOEMAKER	174	500		.	2	400	800	1700	900
0035	E	GODFREY	ALEXAND BOOT/SOUE	174	1500		.	3	600	1000	1600	600
0034	D	MURRAY	WILLIAM SHOE SHOP	174	100		.	1	500	700	1528	828
0035	B-2	FISCHER	GEORGE BOOT/SOUE	174	100		.	2	150	1000	1500	500
0034	D	VALLERY	FRANK SHOE SHOP	174	170		.	1	500	300	1400	1100
0035	A-2	DEEBEL JOHN	SHOEMAKER	174	700		.	3	250	600	1300	700
0033	C-3	MCNILLAN J A	BOOT/SOUE FACTORY	174	200		.	5	1040	750	1248	498
0034	E-1	JACKSON ANTHONY	BOOT/SOUE SHOP	174	300		.	2	600	480	1200	720
0035	B-1	GREIG PETER	BOOT/SOUE SHOP	174	450		.	2	500	500	1200	700
0035	F	TODD ALEXANDER	SHOEMAKER	174	100		.	2	500	600	1200	600
0034	F-3	FITZGERALD WILLIA	SHOEMAKER	174	150		.	2	300	750	1125	375
0033	A-3	MCLEOD ROBERT	SHOEMAKER	174	40		.	2	500	700	1100	400
0034	E-1	WILLIAMS JOHN	BOOT/SOUE SHOP	174	200		.	2	350	600	1100	500
0035	C-2	GLEASON EDWARD	BOOT/SOUE SHOP	174	110		.	2	400	500	1100	600
0035	B-1	MANNELL THOMAS	BOOT/SOUE SHOP	174	60		.	2	600	490	1060	570
0033	A-3	GAYER JOHN	SHOE SHOP	174	40		.	1	350	400	1000	600
0034	B	GODFREY JOHN	SHOE SHOP	174	600		.	1	300	400	1000	600
0035	C-3	HINCHBURGER PAUL	SHOEMAKER	174	500		.	1	300	500	950	450
0034	B	KERFOOT ISAAC	SHOE SHOP	174	100		.	1	160	600	900	300
0034	C-2	BELL ROBERT	SHOEMAKER SHOP	174	250		.	2	250	300	900	600
0035	C-3	ROSE JAMES	SHOE SHOP	174	100		.	1	200	400	900	500
0034	D	MINNIE	JOHN SHOE SHOP	174	300		.	1	400	450	850	400
0033	C-4	PARKER ABEL	BOOT/SOUE SHOP	174	45		.	1	100	520	800	280
0034	E-3	KELVIE JAMES M	SHOEMAKER SHOP	174	150		.	1	300	450	800	200
0035	A-3	ALLAN GEORGE	SHOE SHOP	174	200		.	1	300	400	800	350
0035	B-1	SMALL SAMUEL	BOOT/SOUE SHOP	174	100		.	2	400	400	800	400
0035	B-3	LOONEY DAVID	SHOEMAKER SHOP	174	400		.	3	400	500	800	300
0034	E-1	DUTTON JOHN W	BOOT/SOUE SHOP	174	150		.	1	150	450	750	300
0033	A-3	CONZENS CHARLES	SHOEMAKER SHOP	174	50		.	1	300	350	700	350
0033	A-3	SMARTZENBURGER C	SHOEMAKER SHOP	174	35		.	1	200	350	700	350
0033	A-4	NEVILS JOHN	SHOEMAKER	174	250		.	0	300	300	700	400

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0034	C-2	VANCE EDWARD	SHOEMAKER SHOP	174	1000	.	.	2	320	200	700	500
0035	B-2	ANDERSON JAMES	SHOEMAKER SHOP	174	.	.	.	1	200	400	700	300
0035	B-2	WADE THOMAS	BOOT/SOUE SHOP	174	.	.	.	1	200	400	700	300
0034	C-2	HOMBERGE GODLIP	SHOEMAKER SHOP	174	200	.	.	1	200	300	600	300
0034	E-1	BROWN JOHN	BOOT/SOUE SHOP	174	20	.	.	1	.	180	600	420
0033	C-3	COUCH THOS	BOOT/SOUE SHOP	174	50	.	.	1	200	275	550	275
0033	A-3	HOCKINS JOHN	SHOEMAKER SHOP	174	120	.	.	1	250	160	500	340
0035	A-2	BRIGHAM JOHN	SHOE SHOP	174	50	.	.	1	300	150	500	350
0034	E-2	KAVANOUGH JAMES	SHOE SHOP	174	500	.	.	2	150	350	475	125
0034	C-1	BROWN JAMES	SHOEMAKER SHOP	174	150	.	.	1	.	318	450	132
0035	C-2	BELL THOMAS	SHOE SHOP	174	50	.	.	2	208	208	416	208
0034	C-1	ALL GEORGE	SHOEMAKER SHOP	174	50	.	.	1	.	200	400	200
0034	E-1	BENNER ROWLAND	BOOT/SOUE SHOP	174	150	.	.	1	50	200	400	200
0035	C-1	GARDNER ALEXANDER	SHOE SHOP	174	.	.	.	2	50	200	400	200
0035	E	HALL ROBERT	SHOE SHOP	174	200	.	.	1	300	200	400	200
0034	E-1	CLARK MALCOLM	BOOT/SOUE SHOP	174	100	.	.	1	.	150	350	200
0035	B-3	FRANCES JOHN	SHOEMAKER SHOP	174	400	.	.	1	150	30	200	170
0035	C-2	ALEXANDER GEORGE	SHOE SHOP	174	50	.	.	1	75	50	125	75
0033	A-4	HEWER WILLIAM	SHOEMAKER SHOP	174	30	.	.	1	50	50	70	20
					=====	=====	=====	=====	=====	=====	=====	=====
					26600	0	181	43441	66806	148297	81491	

WELLINGTON COUNTY: TEXTILE PRODUCERS BY VALUE OF OUTPUT, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUNRAWC	SUMPROC	VADD
0033	C-1	ARMSTRONG/MCCRAE/	WOOLEN FACTORY	182/239	17000	STEAM	12	39	7000	12500	30000	17500
0034	B	BAINE JOHN &	WOOLEN FACTORY	182	6500	W/S	30	12	3000	17000	21000	4000
0034	E-1	HARRIS & CO	WOOLEN FACTORY	182	18400	WATER	40	17	3250	9600	20000	10400
0034	D	WILSON JAMES	CLOTH FACTORY	182	14000	WATER	40	10	5300	8400	14000	5600
0035	B-1	BIRD HENRY G	WOOLEN FACTORY	182	2500	STEAM	12	9	1100	5000	9400	4400
0035	A-2	HENDRY CHARLES	FLAX MILL	189-F	15000	WATER	16	40	6500	1480	8900	7420
0034	A-1	ARMITAGE & HATT	COTTON FACTORY	181	7000	WATER	15	2	900	4000	7200	3200
0034	C-1	HAYNEBERRY JAMES	FLAX MILL	189-F	10000	WATER	15	12	3000	1800	7000	5200
0035	E	YEOMANS DAVID	CARDING/FULLING M	189-W	4000	STEAM	10	1	300	6000	7000	1000
0035	C-2	LAMBERT WILLIAM	WOOLEN FACTORY	182	1000	STEAM	10	6	906	3000	5000	2000
0033	C-2	MURRAY GEORGE	WOOLEN MILL	182	2800	WATER	12	8	1000	3000	4940	1940
0035	A-3	HOLMES THOMAS	CARDING FACTORY	189-W	2000	STEAM	4	2	300	4000	4600	600
0033	A-4	MCEACHEREN JOHN D	WOOL CLOTH FACTORY	182	6000	WATER	12	7	1300	2800	4000	1200
0035	C-2	MCGINNIS PATRICK	CARDING FACTORY	189-W	500	STEAM	5	1	300	2000	2500	500
0034	F-2	WILSON PETER	WOOLEN FACTORY	182	500	WATER	8	3	450	300	2300	2000
0034	E-1	WILSON WILLIAM	CARDING FACTORY	182-W	100			2	75	750	2000	1250
0035	C-2	LAMBERT WILLIAM	FULLING MILL	189-W		STEAM	4	1	300	1500	1965	465
0035	A-3	HOLMES THOMAS	WEAVING SHOP	182-W	400			3	26	697	1800	1103
0033	C-2	CHAMBERS DAVID	WEAVING SHOP	182-W	300			1	500	1100	1625	525
0034	G-1	CALDER JOHN	WEAVER SHOP	182-W				1		800	1600	800
0034	E-1	WILSON WILLIAM	WEAVER	182-W	40			1		700	1500	800
0035	B-1	BILLINGS JOSEPH	WOOLEN FACTORY	182	3000	STEAM	6	2	400	720	1340	620
0035	E	JAMES GEORGE	CARDING/DRESSING	189-W	2500	STEAM	15	4	300	400	1200	800
0034	A-1	FERGUSON PETER	WEAVER	182-W	50			2	20	700	1000	300
0034	E-2	MORTON JAMES	WEAVER	182-W	50			3		245	1000	755
0034	I	STEPHENSON JOHN	CARDING/FULLING F	189-W	2500	W/S	6	2	600	200	1000	800
0035	C-2	BANSLEY JOHN	WEAVER	182-W	30			2	200	800	1000	200
0035	F	HENDERSON ROBERT	WEAVER	182-W	50			1	300	429	999	570
0035	A-3	WOODS JOHN	WEAVER	182-W	40			2	180	660	950	290
0033	A-3	ARCHIBALD JOHN	WEAVER	182-W	35			1	220		900	150
0035	B-2	MCCOLGAN WM JOHN	WEAVER SHOP	182-W	30			1	150	700	850	150
0035	B-2	QUINN THOMAS	WEAVER	182-W	100			2	30	600	800	200
0035	B-4	MCBURNY JAMES	WEAVER	182-W	50			2	300	450	750	300
0033	C-3	MCGAR JOSEPH	ROPE WALK	184	50			2	50	300	700	400
0035	B-2	MCGNINCH HUGH	WEAVER	182-W	40			1	24	500	700	200
0034	F-4	KEMARD JOHN	WEAVER	182-W	10			1	150	316	650	334
0035	B-1	CALDWELL WILLIAM	WEAVER	182-W	75			2	150	300	650	350
0034	F-3	CLAYTON MARGARET	WEAVER	182-W	20			1		160	600	440
0034	I	WHALEY ISAAC	WEAVER	182-W	30			2	75	300	600	300
0035	A-3	JACKSON WILLIAM	WEAVER	182-W	40			2		336	600	264
0034	F-4	WATSON WILLIAM	WEAVER	182-W	20			1		177	585	408
0034	F-3	ROWAN JOHN	WEAVER	182-W	30			1		165	550	385
0035	A-1	WILSON THOMAS	WEAVER SHOP	182-W	60			1	250	300	550	250
0034	C-1	GABELL JOHN	WEAVER	182-W	50			1		300	520	220
0035	C-1	MCCAWLEY ANDREW	WEAVER	182-W	50			2	75	250	510	260
0033	A-3	SCHLEGEL LAWRENCE	WEAVER SHOP	182-W	40			1	200		500	
0033	A-3	WEAVER	WEAVER	182-W	30			2	180		500	
0035	C-3	MCCAULEY WILLIAM	WEAVER	182-W				1	100	390	500	110
0034	A-2	GAIRNS JAMES	WEAVER	182-W	26			1			450	
0034	H-2	REED JAMES	WEAVER	182-W	60			2			420	
0035	C-1	ALEXANDER JAMES	WEAVER	182-W	30			2	200	215	420	205

WELLINGTON COUNTY: TEXTILE PRODUCERS BY VALUE OF OUTPUT, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0035	C-1	SMITH WILLIAM	WEAVER	182-W	50		.	2	150	242	420	178
0034	D	ROOS JOHN	WEAVER	182-W	100		.	1	200	200	400	200
0035	B-1	ASTELL ELLEN	WEAVER	182-W	25		.	1	100	180	400	220
0035	F	GREVE JOHN	WEAVER	182-W	13		.	1	200	172	400	228
0035	C-1	CLEMENSHAW WILLIA	WEAVER	182-W	50		.	1	100	142	360	218
0035	F	HUGHES REBECA	WEAVER	182-W	20		.	1	90	203	345	142
0035	C-1	REILLY LAWRENCE	WEAVER	182-W	40		.	1	100	195	312	117
0035	C-2	SCOTT SARAH	WEAVER	182-W	20		.	1	55	245	300	55
0035	F	DENSMORE ADAM	WEAVER	182-W	30		.	1	60	188	275	87
0035	B-1	KEARNS WILLIAM	WEAVER	182-W	60		.	2	120	40	250	210
0035	C-1	WYNN MISS M	WEAVER	182-W	40		.	1	125	100	250	150
0034	F-3	SMITH WILLIAM	WEAVER	182-W	10		.	1	.	53	240	187
0034	G-2	TROUTEN IRWIN	WEAVER	182-W	40		.	1	.	100	240	140
0034	G-2	PATTERSON	WEAVER	182-W	30		.	0	.	150	240	90
0035	B-1	KERR CHARLES	WEAVER	182-W	35		.	1	60	30	200	170
0035	B-1	COUSLAND ARCHIBAL	WEAVER	182-W	100		.	2	200	100	200	100
0034	F-2	ALEXANDER NANCY	WEAVER	182-W	15		.	1	50	150	200	50
0034	C-2	MCLEAN ANGUS	WEAVER	182-W	40		.	0	.	.	180	.
0034	F-3	DOLMER JOHN	WEAVER	182-W	15		.	1	.	47	180	133
0034	G-2	TROUTEN WILLIAM	WEAVER	182-W	40		.	1	.	100	180	80
0034	F-3	WATSON SUSAN	WEAVER	182-W	40		.	1	.	100	160	60
0034	G-2	BELL JOHN	WEAVER	182-W	30		.	1	.	100	150	50
0035	C-2	WRIGHT MALCOLM	WEAVER	182-W	18		.	1	37	113	150	37
0035	F	COLE JOHN	WEAVER	182-W	15		.	1	50	95	150	55
0034	F-4	REED ELIZA	WEAVER	182-W	35		.	1	.	83	120	37
0035	A-3	WRAY JAMES	WEAVER	182-W	20		.	1	20	73	120	47
0035	C-2	DAWSON ANN	WEAVER	182-W	40		.	1	20	80	100	20
0035	C-2	SCOTT WILLIAM	WEAVER	182-W	40		.	1	17	68	80	12
0035	A-3	ROSSBOROUGH WILLI	WEAVER	182-W	20		.	1	60	49	78	29
0034	F-2	HOAR WILLIAM	WEAVER	182-W	20		.	1	.	.	50	.
0033	A-3	HOEBERGER ERHARDT	WEAVER	182-W	50		.	1	150	.	.	.
0034	E-3	HENDERSON WILLIAM	WEAVER	182-W	100		.	3	20	.	.	.
0034	F-3	BROWN EDWARD	WEAVER	182-W	20		.	1	.	50	.	.
0034	H-2	MUIR FRANCIS	WEAVER	182-W	30		.	3
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					95887		272	266	41495	99788	186854	84116

WELLINGTON COUNTY: CLOTHING BUSINESSES BY OUTPUT, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0033	C-1	CHANCE & HEFFERNAN	CLOTHING SHOP	242	2500	.	.	28	10000	10000	36000	26000
0033	C-4	HEFFERNAN BROS	CLOTHING	242	.	.	.	33	8000	10000	20000	10000
0033	C-1	CORMICK JAMES	CLOTHING	242	4000	.	.	22	6000	4000	15000	11000
0033	C-4	SHAW & MURTON	CLOTHING	242	150	.	.	33	2000	12000	14000	2000
0033	C-4	BISH PHILIP	MILLINERY	249-M	300	.	.	11	1000	9000	12000	3000
0034	D	DASS JAMES	CLOTHING SHOP	242	3000	.	.	10	2500	7000	10000	3000
0034	I	JOHNSTON & LINDSA	MILLINERY/MANTLES	244/249-M	250	.	.	6	2000	5000	8000	3000
0033	C-4	STEWART WILLIAM	CLOTHING	242	.	.	.	6	1500	4000	7000	3000
0033	C-3	MITCHELL WILLIAM	TAILOR SHOP	242	200	.	.	11	1820	3900	5460	1560
0035	C-2	VICH MRS	DRESSMAKER	244	40	.	.	4	212	4680	4892	212
0034	D	TAYLOR ALEXAND	TAILOR SHOP	242	120	.	.	6	920	2785	4724	1939
0034	B	SOMERS J G	MERCHANT TAILOR	242	1000	.	.	3	600	2800	4000	1200
0034	I	CHISHOLM K & CO	MILLINERY/MANTLES	249-M/244	800	.	.	2	250	2500	3500	1000
0034	B	CHERRICK ROBERT	TAILOR SHOP	242	100	.	.	3	500	1830	3298	1468
0035	C-2	CRAIG JOHN	TAILOR	243	200	.	.	2	400	2400	3228	828
0033	A-3	MORRISON R B & CO	TAILOR SHOP	243	100	.	.	4	700	500	3000	2500
0033	C-3	GALLOWAY WILLIAM	MILLINERY/MANTLES	244	40	.	.	4	400	1400	3000	1600
0034	C-2	LAWRENCE JOHN	TAILOR SHOP	242	1600	.	.	2	200	1500	3000	1500
0034	I	FOUNTAIN BENJAMI	TAILOR	242	100	.	.	3	150	2000	3000	1000
0034	E-1	MCLEOD JOHN	CLOTHES FACTORY	243	1200	.	.	4	500	1560	2900	1340
0034	B	MANN & FENWICK	TAILOR SHOP	242	700	.	.	1	150	700	2600	1040
0033	C-4	BUCKHAM ADAM	MILLINERY	249-M	75	.	.	2	180	1600	2500	900
0034	B	CORNWALL FREDERI	MERCHANT TAILOR	242	800	.	.	5	700	1500	2500	1500
0034	I	IRWIN FRANCIS	MILLINERY	249-M/244	.	.	.	3	250	1500	2500	1000
0035	E	CRILLY PATRICK	TAILOR	242	1000	.	.	1	60	1100	2200	1100
0033	A-3	MORRISON R B & CO	MILLINERY SHOP	249-M	50	.	.	1	160	1400	2000	600
0033	B-3	JENKINSON WILLIAM	TAILOR SHOP	242	200	.	.	2	400	1000	2000	1000
0033	C-4	HUNTER JOHN	MILLINERY	249-M	150	.	.	4	350	1200	2000	800
0032	C-4	FRASER GEORGE	MILLINERY	249-M	500	.	.	4	500	1000	2000	1000
0034	B	FRIES ADAM	TAILOR SHOP	242	600	.	.	4	400	1000	2000	1000
0034	I	CHAPMAN WILLIAM	TAILOR	242	.	.	.	3	300	1200	2000	800
0034	I	BROWN LOUIS	TAILOR	242	75	.	.	4	300	400	1900	1500
0034	D	MILNE THOMAS	TAILOR SHOP	242	.	.	.	3	624	400	1600	1100
0034	D	GIBBON C & A	MILLINERY/DRESSMA	249-M/244	100	.	.	7	600	500	1588	1088
0034	F-2	CAMPBELL ALEXAND	MERCHANT TAILOR	243	500	.	.	1	150	1000	1550	550
0034	F-3	REAVY ARCHIBA	TAILOR SHOP	243	.	.	.	2	400	1100	1500	400
0033	C-3	CROFT NATHANI	TAILOR SHOP	242	200	.	.	3	150	1000	1400	400
0035	C-3	DULMAGE AGNES	MILLINERY	244	40	.	.	1	300	900	1300	400
0035	C-3	CAMPBELL ARCHIBAL	TAILOR	242	50	.	.	3	100	1000	1250	250
0035	C-2	WATSON FLORA	MILLINERY	249-M/244	1500	.	.	3	150	700	1200	500
0034	E-1	NELSON JOHN	TAILOR SHOP	243	300	.	.	1	.	800	1200	400
0034	G-1	CLYNE JAMES	TAILOR SHOP	242	1000	.	.	3	100	800	1200	400
0035	E	MCMILLAN NEIL	TAILOR	242	175	.	.	2	400	700	1100	370
0035	B-1	MINES ROBERT	TAILOR SHOP	242	400	.	.	2	400	700	1000	300
0035	B-1	MCLACHLAN HUGH	TAILOR SHOP	243	40	.	.	1	200	600	850	250
0035	C-3	GIBSON EDMOND	TAILOR	243	100	.	.	2	200	580	800	220
0035	A-3	COOPER JERIMINA	MILLINER SHOP	249-M/244	300	.	.	1	75	350	750	400
0034	E-1	JACKSON ANTHONY	TAILOR SHOP	243	200	.	.	4	200	500	700	200
0033	C-1	WELCH WILLIAM	TAILOR/MENS	243	200	.	.	1	200	100	500	400
0033	A-3	MCINTOSH JAMES	TAILOR SHOP	242	50	.	.	1	200	100	500	400
0034	E-1	CUNNINGHAM JOHN	TAILOR SHOP	242	250	.	.	2	150	500	500	350

WELLINGTON COUNTY: CLOTHING BUSINESSES BY OUTPUT, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0034	I	MOORE & SMITH	MILLINER/DRESSMAK	249-M/244	200	.	.	2	.	400	500	100
0034	F-3	CARMICHAEL MALCOLM	TAILOR SHOP	242	.	.	.	1	.	.	400	.
0035	A-2	MC MILLIN	TAILOR SHOP	243/245	50	.	.	1	200	200	400	200
0035	C-3	MCCALLUM AGNES	MILLINERY	249-M/244	20	.	.	1	150	240	400	160
0033	C-4	MARTIN GILL	TAILOR SHOP	242	37	.	.	1	100	200	300	100
0035	A-1	MAXWELL HUGH	TAILOR SHOP	242	100	.	.	2	25	250	300	50
0035	B-3	BYERS JOSEPH	TAILOR SHOP	242	300	.	.	1	150	30	300	270
0035	A-3	MOORE JAMES	TAILOR SHOP	243	100	.	.	1	120	140	260	120
0033	C-4	COULSON HANNAH	MILLINERY	249-M	59	.	.	3	50	200	250	50
0034	F-4	OVERLAND JOHN	TAILOR	242	35	.	.	0	.	180	240	60
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					25956		0	289	48796	117665	217540	99475

WELLINGTON COUNTY: SAW MILLS BY VALUE OF OUTPUT, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0035	F	THOMAS A W GORDON	SAW MILL	251	3500	STEAM	30	5	1800	3509	8700	5191
0034	D	WILSON JAMES	SAW MILL	251	4500	STEAM	25	4	2000	4000	8000	4000
0035	A-2	GRAY MATTHEW	SAW MILL	251	9000	WATER	50	9	1200	3800	8000	4200
0034	C-2	WISSLER JANE	SAW MILL	251	1000	WATER	16	2	1000	2000	6000	4000
0034	F-3	MERCER ROBERT	SAW MILL	251	900	WATER	.	2	276	2400	6000	3600
0034	G-1	ROBINSON & CASSID	SAW MILL	251	4000	STEAM	20	6	1200	2000	6000	4000
0034	C-2	CHEESMAN JOHN	STAVE FACTORY	251	2000	STEAM	15	12	1200	1700	5600	3900
0034	C-2	CHEESMAN JOHN	STAVE FACTORY	251	2000	STEAM	.	12	1200	1700	5600	3900
0034	F-2	MC MILLAN J & D	SAW MILL	251	2000	WATER	40	4	800	2400	5100	2700
0035	C-2	PRESTON GEORGE &	SAW MILL	251	6000	STEAM	40	4	1000	2500	5000	2500
0035	D-3	FARMER ROBERT	SAW MILL	251	15000	STEAM	25	4	500	3000	5000	2000
0035	E	YEOMANS DAVID	SAW MILL	251	4000	WATER	30	3	1000	2500	5000	2500
0035	B-4	HUTCHISON ALEXAND	SAW MILL	251	2000	STEAM	20	2	350	2400	4500	2100
0035	A-3	WATTS ALEX & ROBE	SAW/SHINGLE MILL	251/251-S	4000	STEAM	25	6	1200	1900	4200	2300
0035	C-2	ROBINSON THOMAS	SAW MILL	251	.	STEAM	6	2	500	3000	4000	1000
0035	C-3	BROWN FRANCIS	SAW MILL	251	2000	STEAM	20	5	750	1800	3900	2100
0034	I	JULL THOMAS	SAW MILL	251	2000	WATER	17	4	1000	2000	3600	1600
0034	D	KEY CHARLES	SAW MILL	251	300	WATER	30	5	1100	1500	3500	2000
0034	I	PARSONS JOHN	SAW MILL	251	2500	WATER	16	9	2000	2000	3500	1500
0035	C-1	MC KILLOP ARCHY	SAW MILL	251	2000	STEAM	30	3	700	1500	3500	2000
0035	C-3	BROWN & HOWES	SAW MILL	251	3500	STEAM	25	5	700	1400	3500	2100
0035	C-3	FULTON GEORGE	SAW MILL	251	3000	WATER	.	4	600	1700	3500	1800
0035	C-2	MCLEAN JOHN	PLANING FACTORY	251	700	STEAM	10	1	200	2500	3250	750
0034	D	LANE HENRY	SHINGLE FACTORY	251-S	300	STEAM	20	5	1200	800	3000	2200
0035	A-2	PATERSON JOHN	SAW MILL	251	4000	STEAM	15	3	300	2000	3000	1000
0034	F-1	BROWN JAMES	SAW MILL	251	1700	STEAM	20	2	500	2000	2600	600
0034	G-2	ROBINSON GEORGE	SAW MILL	251	2000	WATER	15	4	500	500	2400	1900
0035	A-2	HENDRY CHARLES	SAW MILL	251	500	WATER	16	3	800	1600	2250	650
0035	D-3	FRASER ALEXANDER	SHINGLE FACTORY	251-S	1000	STEAM	15	8	1600	750	2250	1500
0034	F-2	BURT JAMES & DAVI	SAW MILL/SHINGLES	251/251-S	2000	STEAM	15	2	200	1500	2100	600
0035	D-3	O'CALLAGHAN EDMUN	SAW MILL	251	3000	STEAM	25	4	450	2000	2100	100
0034	E-3	HUXTABLES JAMES	SAW MILL	251/251-S	3000	WATER	20	3	240	1000	2000	1000
0035	G	SHIBLEY ABSALOM	SAW MILL	251	1000	WATER	20	2	300	500	2000	1500
0033	A-1	PASMORE WALTER	SAW MILL	251	500	STEAM	16	4	400	700	1860	1160
0035	C-2	MCACHEREN JOHN D	SHINGLE FACTORY	251-S	2000	STEAM	5	5	500	600	1800	1200
0035	A-2	OWENS THOMS	SAW MILL	251	100	STEAM	13	2	200	1000	1750	750
0035	B-3	LEEDINGHAM & MILN	SAW MILL	251	3000	STEAM	20	2	400	500	1500	1000
0035	D-2	MCKENZIE DUNCAN	SAW MILL	251	800	STEAM	25	2	200	1000	1400	400
0034	F-4	BELL DONALD	SAW MILL	251	1400	STEAM	25	5	600	600	1360	760
0033	A-3	O'FIELD JAMES	PLANING M/PUMP FCY	251/315-P	3300	STEAM	10	2	600	200	1200	1000
0035	D-3	MCKERLIE DAVID	SAW MILL	251	500	STEAM	12	8	500	300	1200	900
0035	A-3	FOUNGNER MICHEL	SAW MILL	251	800	WATER	15	2	100	1000	1190	190
0035	A-1	SNIDER GEORGE	SAW MILL	251	2000	STEAM	28	4	400	600	1100	500
0035	B-2	MICKLE JOHN	SAW MILL	251	4000	STEAM	16	3	470	400	1050	650
0034	E-1	HARRIS & CO	SAW MILL	251	800	WATER	10	1	200	500	1000	500
0034	I	HALEY HUGH	PLANING MILL	251	1500	WATER	40	2	400	450	1000	550
0035	C-1	BRIDGFORD & WRIGH	SAW MILL	251	400	STEAM	10	1	300	500	1000	500
0035	F	MC PHERSON WILLIAM	SAW MILL	251	2500	STEAM	18	2	50	650	1000	350
0035	A-3	HOLMES THOMAS	SHINGLE FACTORY	251-S	3000	STEAM	15	4	750	480	1000	520
0035	B-4	NERGGY JAMES	SAW MILL	251	800	WATER	20	3	179	240	736	496
								1	150	300	625	325

WELLINGTON COUNTY: SAW MILLS BY VALUE OF OUTPUT, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0034	A-1	SCHAFER VALENTIN	SAW MILL	251	700	WATER	35	2	24	640	600	-40
0034	E-3	BIRGE ALONSO	SAW MILL	251	900	WATER	.	2	130	300	600	300
0035	A-1	SNIDER GEORGE W	SHINGLE FACTORY	251-S	300	.	.	3	300	50	600	550
0035	A-3	GUBB WM	SAW MILL	251	1000	STEAM	40	4	228	120	340	220
0035	C-2	MCDONAGH JAMES	SAW MILL	251	.	WATER	.	2	160	105	320	215
0034	E-2	EVERTS RUFUS	SAW MILL	251	500	WATER	20	1	50	100	300	200
0035	B-4	BUSLIN PETER	SAW MILL	251	1000	WATER	20	2	60	100	300	200
0034	F-4	LARSEN BENJAMI	SHINGLE MACHINE	251-S	500	WATER	.	3	.	30	240	210
0035	A-2	WHITE JAMES	SAW MILL	251	500	WATER	12	1	80	100	225	125
0035	A-1	DICKSON JAMES	SHINGLE FACTORY	251-S	500	STEAM	6	5	150	50	198	148
0034	A-3	ELKERTON WILLIAM	SAW MILL	251	200	WATER	8	1	25	25	80	55
0034	H-1	NICKLE ANDREW	SAW MILL	251	1300	WATER	.	3	450	.	.	.
0035	D-1	MCGUIRE ROBERT	SAW MILL	251	.	.	15	2	72	.	.	.
0035	G	JELLY WM	SAW MILL	251	1000	WATER	.	0
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					130200		1129	233	36094	77499	164224	86725

WELLINGTON COUNTY: COOPERS BY VALUE OF OUTPUT, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0034	D	MCMAHON	STAVE FCY/COOPERA	259-C	3000	STEAM	20	16	5000	5000	16000	11000
0034	B	WHITLAW & GAY	COOPERAGE	259-C	600	.	.	8	2000	3750	8000	4250
0033	C-4	WEBBER	COOPER SHOP	259-C	300	.	.	8	3120	1200	5250	4050
0033	C-4	KELLY	COOPER/STAVE FACT	259-C	1000	STEAM	14	6	1800	1250	4690	3440
0034	B	KENNEDY JOHN	COOPER SHOP	259-C	1000	.	.	6	2400	1150	4600	3450
0034	C-2	AISANST GILBERT ?	COOPER	259-C	100	.	.	1	150	250	3000	2750
0034	E-1	BARRY JAMES	STAVE FACTORY/COO	259-C	2500	STEAM	16	6	1250	1250	3000	1750
0034	E-2	HUNTER ALEXAND	COOPER SHOP	259-C	2000	WATER	12	4	1000	1000	3000	2000
0034	A-3	SCHERMAN GEORGE	COOPER SHOP	259-C	1000	STEAM	12	5	1500	1200	1700	500
0034	F-2	IRWIN SAMUEL	COOPER SHOP	259-C	500	.	.	3	500	160	1500	1340
0034	I	MEEK WILLIAM	COOPERAGE	259-C	.	.	.	2	700	510	1310	800
0035	B-2	SMITH ALFRED	COOPER SHOP	259-C	75	.	.	1	160	100	600	500
0034	I	DRIVER THOMAS	COOPERAGE	259-C	.	.	.	1	.	50	573	523
0034	G-1	MCDONALD JAMES	COOPER SHOP	259-C	200	.	.	1	.	60	400	340
0033	A-3	STIEN JOHN	COOPER SHOP	259-C	30	.	.	1	100	25	350	325
0033	C-1	PENDER THOMAS	COOPER SHOP	259-C	100	.	.	2	400	35	300	265
0035	C-2	PURDIE THOMAS	COOPER	259-C	50	.	.	1	52	40	110	70
0033	C-2	WILSON ROBERT	COOPER SHOP	259-C	.	.	.	1	.	30	100	70
0035	A-2	PLANT JEREMIAH	COOPER SHOP	259-C	20	.	.	1	25	75	100	25
0035	C-2	STAGGERS JOHN	COOPER	259-C	50	.	.	1	75	25	100	75
0035	A-1	DALY ROBERT	COOPER SHOP	259-C	50	.	.	1	60	4	75	71
0034	C-2	HILL JOHN	COOPER	259-C	55	.	.	1	.	16	66	50
0035	F	MCDONALD JOHN	COOPER	259-C	30	.	.	1	15	9	24	15
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					12760		62	79	20307	17289	55648	38359

WELLINGTON COUNTY: PLANING MILLS BY VALUE OF OUTPUT, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0033	C-3	STEWART	PLANING/SASH/DOOR	254	12000	STEAM	20	20	6500	10000	35000	25000
0033	C-4	BOULT	SASH/DOOR FACTORY	254	4000	STEAM	20	13	5770	4000	18000	14000
0034	B	POTTER	PLANING M/SASH FC	254	2500	WATER	16	5	2340	2200	6000	3800
0034	D	MCLEAN	CARPENTER SHOP	254	30			3	500	560	2200	1640
0033	C-1	DABLEN	CARPENTER SHOP	254	100			2	500	660	2000	1340
0035	E	GRUER	CARPENTER SHOP	254	700			3	1000	500	2000	1500
0033	C-4	BROWNLAW	CARPENTER/UNDERTA	254/258	100			2	400	400	1600	1200
0034	C-2	KALING CHARLES	SASH FACTORY	254	250			2	300	600	1000	400
0034	G-1	STRACHAN ROBERT	CARPENTER SHOP	254	500			1	400	200	800	600
0035	C-2	HEINS	CARPENTER SHOP	254	200			2	300	50	700	650
0034	F-2	OVERLAND	CARPENTER SHOP	254	500			1	50	150	430	280
0034	I	HAMILTON	WINDOW SASH FACTO	254	10			1		20	200	180
0034	F-3	ROTT	JOINER	254	300	HORSE	1	1		40	50	10
					21190		57	56	18060	19380	69980	50600

WELLINGTON COUNTY: HOUSE BUILDERS BY VALUE OF OUTPUT, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0033	C-1	BARCLAY	CARPENTER SHOP	421-C	1000			13	5500	2250	10000	7750
0034	I	MCNAB	CARPENTER/BUILDER	421-C	100			6	2000	6000	10000	4000
0034	E-1	MURPHY	CARPENTER SHOP	421-C	700			4	750	600	5150	4550
0034	E-1	CARSON	CARPENTER SHOP	421-C	600			4	800	500	5000	4500
0034	D	SMITH	CARPENTER/BUILDER	421-C	2000			7	1600	1125	3300	2175
0034	D	THOMSON	CARPENTER SHOP	421-C	200			3	1080	860	2600	1740
0034	D	HAY	CARPENTER SHOP	421-C	70			3	900	300	1500	1200
0035	E	BODLEY	CARPENTER SHOP	421-C	500			3	1000	250	1500	1250
0035	E	YARLET H	CARPENTER SHOP	421-C	600			3	700	150	1300	1150
0034	D	MOFFAT J & A	CARPENTER/PLANING	421-C	1200	STEAM	8	9	2500	1500	1000	-500
					6970		8	55	16830	13535	41350	27815

WELLINGTON COUNTY: FURNITURE MAKERS BY VALUE OF OUTPUT, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0034	B	MUNDELL JOHN	CABINET FACTORY	261	6000	WATER	16	10	3500	1075	7000	5925
0033	C-3	HAZELTON JAMES	CABINETMAKER SHOP	261	5000		.	4	1200	400	4200	3800
0034	I	CRAWFORD/FITZGERA	CABINET FACTORY	261	400	STEAM	4	4	1200	1000	3000	2000
0035	E	CHEESEMAN & BEGG	CABINET SHOP	261	2000	HORSE	2	4	1000	1000	3000	2000
0035	C-2	WELTE SILAS	CABINET FACTORY	261	2000	STEAM	15	6	1000	360	2050	1690
0035	B-1	PEFFERS NEIL	CABINET SHOP	261	2000		.	2	750	320	1800	1480
0033	C-3	FIRESTONE CHARLES	CABINETMAKER	261	150		.	1	96	800	1200	400
0034	D	GILMOUR JOHN	CABINET SHOP	261	400		.	1	400	500	1200	700
0035	C-3	CASHER	CABINET SHOP	261	900	STEAM	5	2	400	120	1040	920
0033	C-4	HAZELTON JAMES	CABINET SHOP	261	300		.	2	450	150	1000	850
0035	D-3	STEPHENSON ROBERT	CABINET SHOP	261	300		.	1	150	141	700	559
0033	A-3	FISCHER GOTLIEB	CABINETMAKER SHOP	261	300		.	2	200	50	650	600
0035	B-2	ECKLIN JAMES	CABINET SHOP	261	150		.	1	300	100	500	400
0034	F-3	SINCLAIR ALEXAND	CARPENTER SHOP	261/254	600		.	1	.	100	400	300
0034	C-2	FISHER CHRISTIAN	CABINET FACTORY	261	200		.	1	150	25	300	275
0034	F-3	CAMPBELL DUNCAN	JOINER SHOP	261	100		.	1	.	45	200	155
0034	E-1	COOK	OTHELLO CABINET SHOP	261	200		.	1	.	40	80	40
					20500				10796	6226	28320	22094

WELLINGTON COUNTY: TINSMITHS BY VALUE OF OUTPUT, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0033	C-1	SUNLEY WILLIAM	TINWARE SHOP	304-T	2000		.	6	2000	2000	5000	3000
0034	I	PARSONS JOHN	TINSMITH	304-T	500		.	6	1500	2000	5000	3000
0034	I	LESTER JAMES	TIN SHOP	304-T	250		.	3	650	2500	4500	2000
0034	I	DONNER SEPHA	TIN SHOP	304-T	300		.	3	1100	2000	4000	2000
0034	D	RAYMORE DOMINIC	TIN SHOP	304-T	600		.	2	800	1000	3000	2000
0035	E	BISSELL AMOS	TIN SHOP	304-T	2000		.	4	1000	600	3000	2400
0034	D	WEBSTER HENRY	TIN/COPPERSMITH	304-T	375		.	4	600	1270	2400	1130
0034	F-2	CANADA WILLIAM	TIN SHOP	304-T	1000		.	1	350	120	2400	2280
0035	C-3	HILLHOUSE JOHN	TIN/COPPER/IRONWA	304-T	1850		.	1	240	695	1665	970
0034	B	MARTIN THOMAS	TINSMITH SHOP	304-T	1000		.	2	240	454	1200	746
0033	C-3	WEBSTER JOHN	TINSMITH SHOP	304-T	300		.	2	500	600	1000	400
0034	E-1	STOUT ELI	TIN SHOP	304-T	800		.	1	.	120	1000	880
0034	B	WEBSTER SAMUEL	TINSMITH SHOP	304-T	500		.	1	100	455	860	405
0034	F-3	FRANKLIN BENJAMI	TIN SHOP	304-T	225		.	1	.	409	600	191
0034	C-2	COURRIE DUNCAN	TIN SHOP	304-T	300		.	1	200	300	500	200
0035	A-1	KELLY B G	TIN SHOP	304-T	1000		.	2	60	150	300	150
0035	D-3	MARTIN ROBERT	TINSMITH SHOP	304-T	250		.	1	50	75	300	225
					13250				9390	14748	36725	21977

WELLINGTON COUNTY: CARRIAGE MAKERS BY VALUE OF OUTPUT, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0033	C-4	ARMSTRONG JOHN B	CARRIAGE FACTORY	329	10000		.	20	7000	1600	20000	18400
0033	C-3	BRUCE G A	CARRIAGE/SLEIGH S	329	3500		.	16	8500	3000	14500	11500
0034	I	BUYERS & MEREDIT	CARRIAGE FACTORY	329	400		.	10	3000	4000	8000	4000
0035	E	SWANN THOMAS	WAGON SHOP	329	10000	STEAM	12	15	3500	4000	6000	2000
0034	D	ANDERSON MATHEW	BLACKSMITH/WAGONS	329	5000		.	8	2050	1750	5800	4050
0034	I	NICHOLSON ISAAC	CARRIAGES/BLACKSM	329	250		.	4	1500	2000	5000	3000
0034	I	MENERY R & D	CARRIAGES/WAGON SH	329	500		.	3	.	2000	4000	2000
0035	C-2	PATMORE BROS	CARRIAGE FACTORY	329	500		.	8	850	1750	4000	2250
0034	B	STEELE G & J	CARRIAGE SHOP	329	700		.	3	925	693	3460	2767
0033	A-2	COBER BROS	CARRIAGES/SHINGLE	329/251-S	200	STEAM	16	8	1800	200	3175	2975
0033	C-1	ARMSTRONG WM & CO	BLACKSMITH/CARRIA	329	3700		.	6	2000	620	3100	2480
0033	A-3	LAING & HANNING	BLACKSMITH/WAGONS	329/896	200		.	4	1200	500	3000	2500
0033	C-4	PARKER ROBERT	CARRIAGE/WAGON FC	329	400		.	8	2000	700	3000	2300
0035	B-1	SMALL & MITCHELL	CARRIAGE FACTORY	329/315-P	700	HORSE	8	6	1600	500	3000	2500
0035	D-3	FAIR JOHN	WAGONMAKER SHOP	329	400		.	2	300	1800	3000	1200
0035	E	RYAN JAMES & THOM	WAGON SHOP	329	3000		.	5	400	1000	3000	2000
0033	C-3	SMITH WILLIAM	WAGONS/BLACKSMITH	329/896	400		.	3	550	600	2500	1900
0034	B	CUTHBERT & NOBLE	CARRIAGE SHOP	329	2000		.	6	400	710	2450	1740
0034	D	RICHARDSON THOMAS	WAGONS/BLACKSMITH	329/311	800		.	4	700	1000	2000	1000
0034	F-3	BYRNE JOHN	BLACKSMITH/WAGONS	329/311	500		.	3	936	148	1722	1574
0033	A-3	MCINTYRE ALLAN	BLACKSMITH/WAGONS	329	676		.	4	1728	900	1700	800
0033	A-3	CAMPBELL & ATKINS	WAGON/PLOUGH SHOP	329/311	100		.	2	720	250	1500	1250
0034	E-2	COGHLIN GEORGE	WAGON SHOP	329	500		.	2	150	375	1500	1125
0035	B-3	DOWNING JOHN W	CARRIAGE/WAGON FC	329	1000		.	6	800	590	1500	910
0033	B-2	CLEMENTS JOHN	WAGONS/BLACKSMITH	329/896	2000		.	4	800	300	1480	1180
0035	B-1	GLENN JOHN	BLACKSMITH SHOP	329/261	200		.	1	300	430	1380	950
0035	C-3	TAYLOR & WHYTE	BLACKSMITH	329/896	400		.	1	300	600	1310	710
0035	B-2	GORDON THOMAS H	BLACKSMITH FORGE	329	500		.	1	180	600	1200	600
0035	E	CRUSE JAMES	WAGON SHOP	329	250		.	1	300	300	1200	900
0035	C-3	WALTON KENNETH M	WAGON SHOP	329	600		.	1	200	225	1050	825
0034	C-2	JOHNSON & SIMPSON	WAGONMAKER SHOP	329	1000		.	3	256	275	1000	725
0035	B-2	WILLIAMS HUGH	WAGON SHOP	329	300		.	1	160	150	1000	850
0035	C-2	MONTGOMERY ANDREW	CARRIAGE FACTORY	329	100		.	4	636	200	1000	800
0035	A-3	QUICK JOHN	BLACKSMITH SHOP	329-P/311	300		.	2	500	180	921	741
0035	A-3	MCKENZIE KENNETH	CARRIAGE/MAKER	329	400		.	2	300	232	900	668
0034	G-1	JUPP ONSLOW	WAGON SHOP	329	300		.	1	240	150	800	650
0033	C-4	CHASE CALEB	BLACKSMITH/WAGONS	329	1500		.	4	1200	250	700	450
0035	B-3	MARCHAL STEPHEN	CARRIAGE/WAGON SH	329	800		.	1	200	90	700	610
0035	A-3	MCBRIDE MOSES	WAGON FACTORY	329	100		.	2	104	60	670	610
0035	G	CURRY JOHN	WAGON SHOP	329	100		.	2	150	40	650	610
0035	A-2	MCLEARY WILLIAM H	WAGON SHOP	329	300	HORSE	1	1	300	100	630	530
0034	E-1	MORRIS SAMUEL	CARRIAGE/WAGON SH	329	200		.	1	25	60	600	540
0035	D-2	REID JOSEPH	CARRIAGE FACTORY	329	1000		.	5	340	150	600	450
0035	D-3	FARMER THOMAS	WAGONMAKER SHOP	329	500		.	1	240	108	600	492
0034	F-1	CAMPBELL DUNCAN	WAGON SHOP	329	300		.	2	400	300	516	216
0034	C-2	KILPATRICK ROBERT	WAGONMAKER SHOP	329	600		.	1	450	50	500	450
0035	A-2	GRAY JOHN	WAGON SHOP	329/311	300		.	2	80	60	500	440
0035	A-3	HARRINGTON THOMAS	WAGON SHOP	329/311	.		.	1	300	100	414	314
0033	A-4	ARRIS JAMES	WAGON SHOP	329	75		.	1	300	100	400	300
0035	A-2	WILSON HUGH	WAGON SHOP	329	80		.	1	120	40	400	360
0035	B-1	WARD WILLIAM	CARRIAGE FACTORY	329	400	HORSE	2	1	300	70	370	300

WELLINGTON COUNTY: CARRIAGE MAKERS BY VALUE OF OUTPUT, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0035	B-3	DUNHAM WILLIAM	CARRIAGE/WAGON FC	329	500		.	2	300	159	250	91
0034	E-1	NELAN THOMAS	CARRIAGE/WAGON SH	329	100		.	1	100	60	220	160
0034	B	SIMON & GERRARD	WAGON SHOP	329	200		.	1	.	28	115	87
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					58831		39	208	51690	36153	128983	92830

WELLINGTON COUNTY: MACHINERY MAKERS BY VALUE OF OUTPUT, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0033	C-3	GUELPH SEWING M C	SEWING MACHINE FC	315-S	65000	STEAM	12	180	75000	62000	204800	142800
0033	C-3	RAYMOND CHARLES	SEWING MACHINE FC	315-S	25000	STEAM	15	70	30000	42000	85000	43000
0034	D	LOCKMAN & WILSON/	SEWING MACHINES	315-S	15000	STEAM	25	75	22000	20000	75000	55000
0033	C-4	INGLIS & HUNTER	FOUNDRY/MACHINE S	315-E/301	12000	STEAM	12	48	20000	3800	30000	26200
0034	B	POTTER D M	FOUNDRY/MACHINE S	311	20000	WATER	50	30	8320	4700	30000	25300
0033	C-3	ARMES EDWIN	SEWING MACHINE FC	315-S	15000	STEAM	6	30	10000	5000	26000	21000
0034	D	ASH & MUIR & CO	FOUNDRY	311	10000	STEAM	15	22	8000	7000	25000	18000
0035	E	KILGOUR ROBERT	FOUNDRY	311	6000	STEAM	10	17	6000	5000	18000	13000
0034	C-2	MODLAN ISAAC	IRON FOUNDRY	311	8000	WATER	25	16	4000	4000	15000	11000
0034	F-2	MC MILLAN DONALD	BLACKSMITH/PUMP F	311/329	5000	STEAM	10	10	3000	2130	10325	8195
0033	C-3	COSSITT LEVI	AG IMPL/SASH/DOOR	311/254	5000	STEAM	10	11	3200	3500	10000	6500
0033	C-4	ROBERTSON A & SON	FOUNDRY/MACHINE S	315-E/301	10000	STEAM	15	13	2900	2000	10000	8000
0033	C-3	WORKSWICK THOS	GUELPH MCHN TOOL	315-M	9000	STEAM	6	10	4500	4800	8000	3200
0035	C-2	LAMBERT R G	AGRC IMPLEMENT FC	311	4000	STEAM	25	4	1600	2180	7000	4820
0034	F-2	MILLAY HUGH	BLACKSMITH/WAGONS	311/896	1000		.	6	2000	1600	4570	2970
0034	D	PHELAN JAMES	FANNING MILL FACT	311	600		.	4	600	4000	3300	-700
0034	I	DANIELS WILLIAM	FARM IMPLEMENT SH	311/254	500	HORSE	2	3	900	360	3000	2640
0034	D	TEMPLETON JOHN	BLACKSMITH SHOP	311	250		.	2	600	350	1800	1450
0033	C-4	THAINE CHARLES	AGRC IMPLEMENT FC	311	500		.	3	800	552	1777	1225
0033	C-2	SPRAGGE PHILIP	PUMP FACTORY	315-P	250		.	2	300	75	1200	1125
0033	B-3	COWAN WALTER	AGRC IMPLEMENT FC	311	200	HORSE	1	2	50	200	1000	800
0034	B	FARROW EDWARD	PUMP FACTORY	315-P/259	200		.	1	200	145	1000	855
0034	F-2	ACKERT ADAM	PUMPMAKER	315-P	500		.	1	100	100	1000	900
0034	D	LITTLE WILLIAM	WAGON SHOP	311	50		.	1	200	200	600	400
0034	H-2	TIBBITT JOHN	TURNER SHOP	315-H	100	HORSE	1	1	.	.	400	.
0034	G-1	LOCHER JOHN	PUMP FACTORY	315-P	200		.	1	.	40	300	260
0033	C-4	STOVELL EDWARD	PUMP FACTORY	315-P	150		.	1	150	25	250	225
0034	E-3	WILLIAMS GEORGE	PUMPMAKER SHOP	315-P	300		.	1	213	16	224	140
0034	F-2	HARRIS JOHN	SPINNING WHEEL FC	315-H	200	HORSE	1	1	.	10	150	140
0035	C-3	WALTON KENNETH M	IRON FOUNDRY	311/329	3000	STEAM	10	5	700	600	50	-550
0035	B-2	POTTER HENRY	PLOUGH/HARROW SHO	311	.		.	1	20	15	35	20
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					217000		251	572	205353	176398	574797	397999

WELLINGTON COUNTY: BRICK OR LIME MFG BY VALUE OF OUTPUT, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0034	I	HEWITT	ROBERT	351-B	500	HORSE	.	6	1000	.	2000	.
0034	I	HALEY	HUGH	351-B	.	.	1	5	550	.	1150	.
0035	E	WYERS	WILLIAM	351-B	1000	HORSE	1	5	750	150	1000	850
0035	B-1	CRESS SIMON	BRICK FACTORY	351-B	150	HORSE	4	3	431	50	960	910
0035	A-1	CLARKE JAMES	BRICK YARD	351-B	200	.	.	3	50	15	500	485
0035	B-4	CROSWELL & FRENCH	BRICK FACTORY	351-B	200	HORSE	1	5	300	70	370	300
0035	A-3	FOZER WILLIAM	BRICK KILN	351-B	80	.	.	2	200	50	300	250
0035	B-4	CROSWELL C & C	BRICK FACTORY	351-B	200	HORSE	1	4	180	80	300	220
0034	I	ANDERSON JOHN	POTTERY	351-P	200	.	.	4	1000	300	3000	2700
0034	B	BROWN GEORGE	MARBLE WORKS	353	2000	.	.	1	360	840	3750	2910
0034	I	LUTTON & GERMAN	MARBLE WORKS	353	.	.	.	3	900	1000	3000	2000
0033	C-3	FEAST ALFRED	MARBLE CUTTER	353	200	.	.	2	520	250	1100	850
0033	C-2	ENSLIE ROBERT	LIME KILN	358-L	3000	.	.	10	2100	719	4320	3601
0033	B-1	CARROLL EDWARD	LIME KILN	358-L	400	.	.	8	600	400	4000	3600
0034	D	WILSON JAMES	LIME KILN	358-L	500	.	.	2	300	650	1500	850
0034	C-2	ALAN JAMES	LIME KILN	358-L	100	.	.	2	122	180	1080	900
0035	E	BURNETT GEORGE	LIME KILN	358-L	200	.	.	3	400	400	900	500
0034	B	GRAY WILLIAM	LIME KILN	358-L	100	.	.	2	200	70	700	630
0034	F-2	HAMILTON JOHN	LIME KILN	358-L	200	.	.	1	195	245	625	380
0034	E-1	MCURRY CHARLES	LIME KILN	358-L	200	.	.	1	100	118	600	482
0034	E-1	DUNBAR ROBERT	LIME KILN	358-L	100	.	.	2	200	260	550	290
0033	C-1	KRIBS DANIEL	LIME KILN	358-L	100	.	.	2	200	260	550	290
0035	E	YEOMANS DAVID	LIME KILN	358-L	300	.	.	2	200	160	450	290
0034	I	HUGHSON ANDREW	LIME KILN	358-L	200	.	.	1	300	200	312	112
0034	C-1	TENNANT DAVID	LIME KILN	358-L	100	.	.	1	100	.	300	.
0034	C-2	HARRIS MICHAEL	LIME KILN	358-L	100	.	.	1	84	25	275	250
0035	B-1	PALMER WILLIAM	LIME KILN	358-L	60	.	.	1	40	100	250	150
0035	G	HICKS & EVANS	LIME KILN	358-L	10	.	.	3	200	25	225	200
0034	G-2	STEWART JOHN	LIME KILN	358-L	85	.	.	1	85	100	225	125
0035	C-3	COCKWELL JOHN	LIME KILN	358-L	75	.	.	1	50	56	180	124
0034	A-1	DIPPLE NICHOLAS	LIME KILN	358-L	50	.	.	1	17	50	135	85
0034	I	WHALEY ERIC	LIME KILN	358-L	20	.	.	4	50	10	112	102
0034	A-1	BAILY THOMAS	LIME KILN	358-L	15	.	.	2	.	.	105	.
0034	F-1	SMITH JACOB	LIME KILN	358-L	50	.	.	2	50	24	80	56
0034	E-3	BEATTIE GEORGE	LIME KILN	358-L	50	.	.	2	.	.	66	.
0034	C-1	LANG JOHN	LIME KILN	358-L	75	.	.	3	12	40	50	10
0035	C-2	FINLAY JAMES	LIME KILN	358-L	100	.	.	1	20	10	40	30
0034	H-1			358-L	100	.	.	3	320	250	.	.
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					10850			8	12186	7157	35122	24532

WELLINGTON COUNTY: BLACKSMITHS BY VALUE OF OUTPUT, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0034	C-1	MAITLAND WM & JOH.	BLACKSMITH FORGE	896	2500	.	.	8	1500	2800	7140	4340
0035	C-2	MONTGOMERY ANDREW	BLACKSMITH FORGE	896	300	.	.	5	624	925	3000	2075
0035	E	HONEY JAMES	BLACKSMITH SHOP	896	300	.	.	3	600	300	3000	2700
0033	C-3	SIMPSON ALLAN	BLACKSMITH SHOP	896	400	.	.	2	471	850	2000	1150
0034	C-2	JOHNSON & SIMPSON	BLACKSMITH SHOP	896	1000	.	.	1	275	800	2000	1200
0035	C-2	GILHULLY RICHARD	BLACKSMITH FORGE	896	500	.	.	3	400	1000	2000	1000
0035	D-3		BLACKSMITH FORGE	896	500	.	.	3	350	500	2000	1500
0034	G-1	MCGREGOR WILLIAM	BLACKSMITH SHOP	896	800	.	.	1	360	500	1800	1300
0034	B	HAMILTON HUGH	BLACKSMITH SHOP	896	1000	.	.	1	400	465	1700	1235
0034	D	HUNT JOHN	BLACKSMITH SHOP	896	200	.	.	3	700	560	1650	1090
0034	C-2	MUNRO JOHN	BLACKSMITH SHOP	896	400	.	.	2	250	400	1500	1100
0034	F-2	WALKER WILLIAM	BLACKSMITH SHOP	896	300	.	.	1	150	1063	1500	437
0035	D-3	CHURCH GEORGE	BLACKSMITH FORGE	896	500	.	.	1	180	400	1500	1100
0033	A-2	PANNABECKER SAMUE	BLACKSMITH SHOP	896	500	.	.	3	600	500	1400	900
0034	F-3	MCKENZIE	BLACKSMITH FORGE	896	150	.	.	1	225	.	1300	.
0035	C-3	ANDREWS JOSEPH	BLACKSMITH	896	400	.	.	2	350	470	1280	810
0033	C-1	HOOPER WM & CO	BLACKSMITH SHOP	896	200	.	.	2	800	408	1240	832
0034	E-2	LOREE WILLIAM	BLACKSMITH FORGE	896	500	.	.	2	200	200	1200	1000
0034	F-1	HEASMAN WILLIAM	BLACKSMITH FORGE	896	600	.	.	2	400	710	1200	490
0034	F-4	ALLEN LEON	BLACKSMITH FORGE	896	1500	.	.	2	.	166	1120	954
0033	A-3	ELPHNER GEORGE	BLACKSMITH FORGE	896	40	.	.	2	350	300	1000	700
0034	B	FITZGERALD JOHN	BLACKSMITH SHOP	896	400	.	.	1	182	465	1000	535
0034	E-1	TURNER JOHN	BLACKSMITH SHOP	896	500	.	.	1	120	500	1000	500
0034	E-1	ALLEN WILLIAM	BLACKSMITH FORGE	896	100	.	.	1	200	800	1000	200
0034	E-2	FORSYTH WILLIAM	BLACKSMITH SHOP	896	500	.	.	2	75	250	1000	750
0034	I	CROOKSHANKS WILLI	BLACKSMITH SHOP	896	100	.	.	1	40	200	1000	800
0035	A-1	FOREST CHARLES	BLACKSMITH SHOP	896	500	.	.	2	300	400	1000	600
0035	A-3	KILPATRICK JOSEPH	BLACKSMITH FORGE	896	400	.	.	2	330	260	1000	740
0035	A-3	HASTINGS THOMAS	BLACKSMITH SHOP	896	300	.	.	2	500	200	1000	800
0035	B-2	SMITH SYDNEY	BLACKSMITH FORGE	896	200	.	.	2	75	400	1000	600
0035	C-1	MCBRIDE JAMES	BLACKSMITH SHOP	896	150	.	.	2	200	400	1000	600
0034	E-1	HOWIE ANDREW	BLACKSMITH FORGE	896	200	.	.	1	150	400	900	500
0034	G-1	RODGER WILLIAM	BLACKSMITH SHOP	896	1000	.	.	2	200	50	900	850
0033	A-4	NICHOL GEORGE	BLACKSMITH FORGE	896	200	.	.	2	400	400	800	400
0033	B-1	WATSON ALFRED	BLACKSMITH FORGE	896	800	.	.	2	200	400	800	400
0034	E-3	WHITE JAMES	BLACKSMITH SHOP	896	1000	.	.	2	200	100	800	700
0034	H-1	HILL ROBERT	BLACKSMITH FORGE	896	400	.	.	2	600	200	800	600
0034	I	JONES JOHN	BLACKSMITH SHOP	896	50	.	.	1	150	100	800	700
0035	F	HAIGHT SILAS E	BLACKSMITH FORGE	896	150	.	.	1	150	120	800	680
0034	F-1	HAWKINS JOHN	BLACKSMITH FORGE	896	400	.	.	1	.	510	750	240
0034	H-1	DEPEW PETER	BLACKSMITH FORGE	896	20	.	.	2	550	150	700	550
0035	C-1	WILSON WELLINGTON	BLACKSMITH SHOP	896	500	.	.	1	100	250	700	450
0035	D-3	BUSCHELIN ANTHONY	BLACKSMITH FORGE	896	600	.	.	3	550	400	700	300
0033	A-3	POACK & KITTS ?	BLACKSMITH FORGE	896	40	.	.	2	480	100	650	550
0034	H-2	SMITH THEODORE	BLACKSMITH SHOP	896	300	.	.	1	.	150	650	500
0035	A-2	MCLEARY WILLIAM H	BLACKSMITH FORGE	896	700	.	.	1	500	120	620	500
0035	B-2	YOUNGER ROBERT	BLACKSMITH FORGE	896	600	.	.	1	400	140	600	450
0035	B-3	LAIRD GEORGE	BLACKSMITH FORGE	896	150	.	.	1	200	150	600	450
0035	C-1	WARD GEORGE M	BLACKSMITH FORGE	896	20	.	.	2	400	100	600	500
0035	G	DONEY GEORGE	BLACKSMITH SHOP	896	100	.	.	1	150	175	600	425
0035	A-2	WADE ABRAHAM	BLACKSMITH SHOP	896	400	.	.	1	250	120	550	430

WELLINGTON COUNTY: BLACKSMITHS BY VALUE OF OUTPUT, 1871

CDID	CEID	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0035	B-2	CROOKSHANKS SAMUE	BLACKSMITH FORGE	896	400	.	.	1	100	200	550	350
0033	A-1	MOFFAT CHRISTOPHE	BLACKSMITH FORGE	896	200	.	.	2	275	80	500	420
0033	A-3	BANNATYNE ALEXAND	BLACKSMITH FORGE	896	80	.	.	1	300	100	500	400
0033	B-2	STEELE JOHN	BLACKSMITH SHOP	896	200	.	.	1	200	40	500	460
0034	A-1	CARPENTER AMASA	BLACKSMITH FORGE	896	200	.	.	2	30	160	500	340
0034	A-1	ISAAC JAMES	BLACKSMITH FORGE	896	300	.	.	2	.	160	500	340
0034	B	GREENAWAY & HAYES	BLACKSMITH SHOP	896	30	.	.	1	192	60	500	440
0034	E-2	TORRANCE WILLIAM	BLACKSMITH SHOP	896	400	.	.	3	250	300	500	200
0034	F-3	HARRIS JOHN T	BLACKSMITH FORGE	896	100	.	.	1	.	150	500	350
0034	F-3	HILL JOHN	BLACKSMITH FORGE	896	300	.	.	1	.	180	500	320
0034	H-2	VANATTER WILLIAM	BLACKSMITH FORGE	896	200	.	.	1	.	150	500	350
0035	B-1	TOOL PETER	BLACKSMITH SHOP	896	300	.	.	1	250	150	500	350
0035	B-1	MCVAY FRANCIS	BLACKSMITH	896	250	.	.	1	250	100	500	400
0035	G	GREY RICHARD	BLACKSMITH SHOP	896	100	.	.	1	150	150	500	350
0034	E-3	MCDONALD JOHN	BLACKSMITH SHOP	896	500	.	.	2	200	140	450	310
0035	A-1	ALLAN JAMES	BLACKSMITH SHOP	896	200	.	.	1	300	30	450	420
0033	A-3	SLATER DANIEL	BLACKSMITH FORGE	896	60	.	.	1	300	30	400	370
0034	C-1	SHERRATT ARCHIBAL	BLACKSMITH FORGE	896	700	.	.	1	.	200	400	200
0034	H-2	STRINGER WILLIAM	BLACKSMITH FORGE	896	50	.	.	1	.	70	400	330
0035	G	SLOAN HENRY	BLACKSMITH SHOP	896	50	.	.	1	150	150	400	250
0034	E-2	ALBOT WILLIAM	BLACKSMITH FORGE	896	100	.	.	1	.	200	300	100
0034	G-1	MORRISON JEREMIAH	BLACKSMITH SHOP	896	200	.	.	1	.	25	300	275
0034	G-1	MASON CHARLES	BLACKSMITH SHOP	896	100	.	.	1	.	120	300	180
0034	G-1	GULLY JOHN	BLACKSMITH SHOP	896	200	.	.	1	.	60	300	240
0035	B-2	HAMBLY THOMAS	BLACKSMITH FORGE	896	200	.	.	1	160	140	300	160
0033	C-3	RENTON GEORGE	BLACKSMITH SHOP	896	150	.	.	1	150	50	200	150
0034	C-2	WHITELY FRANCIS	BLACKSMITH SHOP	896	400	.	.	3	150	80	200	120
0035	B-3	WAIRD WILLIAM	BLACKSMITH FORGE	896	700	.	.	1	60	80	150	70
0034	E-1	HOWSON JOHN	BLACKSMITH FORGE	896	120	.	.	1	.	39	126	87
0035	A-2	MORGAN GEORGE	BLACKSMITH FORGE	896	200	.	.	1	100	50	112	62
0035	B-1	KAULVERS CHARLES	BLACKSMITH SHOP	896	350	.	.	2	300	50	100	50
0033	A-2	GIBBON THOMAS	BLACKSMITH	896	40	.	.	1	400	100	.	.
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